Evaluation Report

OFFICE OF THE INSPECTOR GENERAL

EVALUATION REPORT ON THE STATUS OF RESOURCES AND TRAINING SYSTEM

Report No. 96-086 **March 15, 1996**

DEPARTMENT OF DEFENSE

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Acronyms

CJCS	Chairman of the Joint Chiefs of Staff
DISA	Defense Information Systems Agency
GAO	General Accounting Office
GCCS	Global Command and Control System
GSORTS	Global Command and Control System Status of Resources and Training System
JCS	Joint Chiefs of Staff
JOPES	Joint Operation Planning and Execution System
MOP	Memorandum of Policy
NMCC	National Military Command Center
SORTS	Status of Resources and Training System
USMTF	United States Message Text Format
WWMCCS	Worldwide Military Command and Control System

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
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March 15, 1996

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR PERSONNEL AND READINESS
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL MANAGEMENT AND COMPTROLLER)
ASSISTANT SECRETARY OF THE AIR FORCE (FINANCIAL MANAGEMENT AND COMPTROLLER)
DIRECTOR, JOINT STAFF
AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Evaluation Report on Status of Resources and Training System (Report No. 96-086)

We are providing this evaluation report for information and use. We considered management comments on a draft of this report in preparing the final report.

Comments on the draft report conformed to the requirements of DoD Directive 7650.3 and left no unresolved issues. Therefore, no additional comments are required.

We appreciate the courtesies extended to the evaluation staff. Questions on the evaluation should be directed to Colonel Timothy Turner, U.S. Air Force, Evaluation Program Director, at (703) 604-9555 (DSN 664-9555) or Lieutenant Colonel Ernest S. Moore, U.S. Air Force, Evaluation Project Manager, at (703) 604-9564 (DSN 664-9564). See Appendix J for the report distribution. Evaluation team members are listed inside the back cover.

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Report No. 96-086 March 15, 1996

Status of Resources and Training System

Executive Summary

Introduction. The Status of Resources and Training System is the single, automated reporting system within the DoD that provides the National Command Authorities and the Chairman of the Joint Chiefs of Staff the authoritative identification, location, assignment, personnel, and equipment data for registered units and organizations of the U.S. Armed Forces. The Joint Staff maintains a composite registry of more than 56,000 units and organizations, with more than 9,500 reporting regularly.

The Status of Resources and Training System has been plagued in past years by major deficiencies that affect the reliability and validity of information submitted to senior DoD decision makers. Since 1984, various audit and oversight organizations have produced at least 41 reports (including 13 Joint Universal Lessons Learned) that, in part, discussed the effectiveness of the Status of Resources and Training System or its immediate predecessor, the Unit Status and Identity Report. An overwhelming majority of those reports identified systemic problems that remain today.

In February 1995, the Vice Chairman, Joint Chiefs of Staff, briefed the commanders in chief of the unified commands on an action plan to fix the system. The commanders in chief agreed with the approach; however, the Joint Staff did not implement a comprehensive, formal action plan.

Evaluation Objective. The primary objective was to determine the efficiency and effectiveness of the Status of Resources and Training System in providing timely and accurate information to meet the needs of the National Command Authorities and senior DoD decision makers. In accomplishing that objective, we evaluated management of the system from unit reporting to information available at the National Military Command Center.

Evaluation Results. The Status of Resources and Training System is ineffective in accomplishing its highest priorities--supporting crisis response and deliberate planning. As a result, the National Command Authorities, the Chairman of the Joint Chiefs of Staff, and the commanders in chief of the unified commands cannot rely on the Status of Resources and Training System to plan deployments; determine authoritative unit status or location; assess execution of Operations Plans; or make effective, time-sensitive decisions (Part I). Although the Joint Staff and the Military Departments have taken actions in response to the reports and studies mentioned above, the actions taken did not effectively correct systemic deficiencies. The Joint Staff and the Military Departments have not instituted long-needed reforms. Comprehensive management actions can correct deficiencies, improve system definition and policy, provide effective management oversight and controls, and enhance the overall effectiveness of the system.

Summary of Recommendations. We recommend that the Director for Operations, Joint Staff, in coordination with the unified commands, the Military Departments, and the Defense Information Systems Agency, develop a formal, comprehensive action plan

that would correct Status of Resources and Training System deficiencies. Some key elements of the comprehensive plan would include determination of specific Status of Resources and Training System information needs and requirements, simplification of the Status of Resources and Training System to achieve realistic reporting, clarification of Chairman of the Joint Chiefs of Staff guidance on roles and responsibilities, and creation of a centralized Status of Resources and Training System data base. We also recommend annual reporting to the DoD Readiness Working Group on the effectiveness of the Status of Resources and Training System in meeting senior decisionmaker needs, improving oversight mechanisms, implementing management controls, assessing training needs, and developing training programs. Finally, we recommend that the Director for Operations, Joint Staff, assess personnel assignment policy and methods to provide greater stability to the management of the Status of Resources and Training System. Appendix H provides a summary of potential benefits.

Under Secretary of Defense for Personnel and Readiness Comments. The Under Secretary of Defense for Personnel and Readiness concurred, stating that the DoD Senior Readiness Oversight Council was scheduled to meet in March and May 1996 to review Joint Staff and DoD Readiness Working Group initiatives designed to correct Status of Resources and Training System deficiencies.

Joint Staff Comments. Although disagreeing with certain aspects of the report, the Joint Staff concurred with the recommendations. The Joint Staff has developed and implemented a formal action plan that addresses most of the deficient areas identified in the report. Numerous actions are ongoing or planned for mid-1996. The Joint Staff will brief the DoD Readiness Working Group annually on system improvements and has already taken steps to improve management stability.

Army Comments. Although the Army disagreed with certain aspects of the report, the Army agreed that system improvements were necessary. The Army is improving standardization and clarity of procedures, simplifying reporting requirements, and enhancing quantitative methods in the June 1996 revision to unit reporting procedures. Also, the Army is developing definitive guidance for personnel performing Basic Identification Data Element reporting and is reevaluating training requirements.

Navy and Marine Corps Comments. The Navy and Marine Corps deferred comments on the recommendations to the Joint Staff.

Air Force Comments. The Air Force concurred. In coordination with the Joint Staff, the Air Force will report annually to the DoD Readiness Working Group.

U.S. Strategic Command Comments. Although not required to comment, the U.S. Strategic Command concurred with the report and recommendations.

U.S Army Special Operations Command Comments. Although not required to comment, the U.S. Army Special Operations Command noted that solutions to long-term problems with the Status of Resources and Training System will remain elusive unless the system's purpose is clearly defined and until the system is managed so that necessary policy decisions can be made and enforced. The command cited significant data base integration and technical design deficiencies.

See Part I for a summary of management comments and Part III for the complete texts of the comments.

Evaluator Response. We consider management comments on the recommendations fully responsive.

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Part I - Evaluation Results

Evaluation Background

Purpose of the Status of Resources and Training System. The Status of Resources and Training System (SORTS) is the single, automated reporting system within the DoD that provides the National Command Authorities and the Chairman of the Joint Chiefs of Staff (CJCS) with authoritative identification, location, assignment, personnel, and equipment data for the registered units and organizations of the U.S. Armed Forces, Defense agencies, and certain foreign and international organizations. The Joint Staff maintains a composite registry of more than 56,000 units and organizations with more than 9,500 reporting regularly. The SORTS is designed to function in all operational environments.

The National Command Authorities, the Chairman of the Joint Chiefs of Staff, the commanders in chief of the unified commands, and other users within the DoD obtain SORTS information through the National Military Command Center (NMCC) SORTS data base. SORTS information supports decision makers during crisis situations and during the peacetime planning process. The Joint Staff, with technical support from the Defense Information Systems Agency (DISA), manages and maintains all information in the NMCC.

Governing Directives. Joint Publication 6-0, "Doctrine for Command, Control, Communications, and Computer (C^4) Systems Support to Joint Operations," June 3, 1992, establishes fundamental objectives and principles for command, control, communications, and computer systems within the DoD. CJCS Memorandum of Policy (MOP) 11, "Status of Resources and Training System (SORTS)," December 24, 1992, and Joint Publication 1-03.3, "Status of Resources and Training System (SORTS)," August 10, 1993, govern the policy and procedures for the SORTS.

Management and Oversight Responsibilities. CJCS MOP 11 and Joint Publication 1-03.3 assign the Joint Staff responsibility for the overall management of SORTS reporting policy, procedures, and oversight. CJCS MOP 11 requires that the Services[1] and the U.S. Special Operations Command (because of its organize, train, and equip responsibilities for assigned special operations forces) ensure all units comply with CJCS policy and Joint Publication 1-03.3 procedures. CJCS MOP 11 and Joint Publication 1-03.3 further task the Joint Staff, the Services, the unified commands, and the DISA with responsibility for monitoring SORTS reporting for accuracy, timeliness, and effectiveness, and direct those organizations to initiate corrective actions when required. Appendix C provides additional details on each of the aforementioned policies and management responsibilities.

Supplemental Instructions. CJCS MOP 11 gives the Services and the unified commands the authority to develop supplemental instructions to ensure applicability and understanding of SORTS policy and procedures within their

[1]For the purposes of this report, the Army, Navy, Air Force, and Marine Corps will hereafter be referred to as the Services. The U.S. Coast Guard forwards SORTS reports through Navy channels.

respective Service or subordinate commands. The Services and the U.S. Special Operations Command have issued implementing instructions for those purposes. CJCS MOP 11 also allows the Services and the U.S. Special Operations Command, in coordination with the Joint Staff, to add Service-unique data to unit SORTS reports. However, CJCS MOP 11 cautions that the additional data "must not interfere with the accurate and timely receipt of reports required." CJCS MOP 11 directs the Services to reduce the unit computation burden to the minimum required for the operational situation.

SORTS Configuration. The Army and the Navy have established unique data processing applications to maintain their respective Service SORTS data and Joint data.[2] The Air Force and the Marine Corps have not developed unique data processing applications. The NMCC SORTS data base incorporates Air Force-unique SORTS information.

Although each Service varies the flow of SORTS reports from its units through their respective reporting mechanisms, major commands typically forward unit reports simultaneously to the NMCC and the respective Service headquarters. The Army, the Navy, and the Air Force maintain SORTS data bases that are separate from the NMCC SORTS data base.

Joint users[3] receive SORTS information through the NMCC data base and do not have access to the SORTS data bases that the Services maintain.

Reporting Requirements. CJCS MOP 11 prescribes the units to be registered and reported under the SORTS and specifies reporting requirements.

Measured Units. Measured units are all combat, combat support, and Service-designated combat service support units of the operating forces of each Service tasked in the Single Integrated Operations Plan, an Operations Plan or Concept Plan, or a Service war planning document. CJCS MOP 11 requires that each measured unit submit SORTS reports.

SORTS Report Categories. Measured units report an overall unit resource and training category level (C-level) as well as unit status in four measured areas: personnel (P-level), equipment and supplies on hand (S-level), equipment condition (R-level), and training (T-level). Overall C-levels can range from C-1 to C-5 based on whether the unit has the required resources and training necessary to undertake the wartime mission(s) for which the unit was organized or designed. A unit's C-level will be identical to the lowest level

[2]For the purposes of this report, Joint data refer to the data elements Joint Publication 1-03.3 requires for units' SORTS reports to the NMCC.

[3]For the purposes of this report, Joint users include the National Command Authorities, the CJCS, the unified commands, the Joint Staff, and other organizations throughout the DoD who require access to multi-Service SORTS information obtained primarily through the NMCC data base.

recorded for any measured resource area unless subjectively raised or lowered by the unit commander. C-1 represents the most favorable level of resources and training.

Change and Validation Reports. CJCS MOP 11 states that the SORTS must reflect additions, changes, and deletions to organizational data that have occurred since the last report. CJCS MOP 11 directs that units submit reports within 24 hours of a change or as directed by the CJCS. Only data elements that have changed since the previous report are required to be in the change report. If no change occurs within 30 days of a report submission, measured units are required to submit validation reports to enhance confidence in the SORTS data base maintained at the NMCC.

Evaluation Objectives

The announced objective of the evaluation was to determine the efficiency and effectiveness of the SORTS in providing timely and accurate information to meet the needs of the National Command Authorities and senior DoD decision makers. We identified three subobjectives:

o evaluate the efficiency and effectiveness of the functional and technical management of SORTS;

o assess the adequacy of the processes and procedures used to compile, report, review, and validate SORTS information through the major command level; and

o evaluate the adequacy of the management and administration of training that prepares individuals and units for SORTS reporting responsibilities.

See Appendix A for a description of the evaluation process. Appendix B summarizes prior coverage related to the evaluation objectives, and Appendix C gives additional background information.

Status of Resources and Training System Support for Senior Decision Makers

The Status of Resources and Training System (SORTS) is ineffective in accomplishing its highest priorities--crisis response and deliberate planning. The SORTS is ineffective because the Joint Staff and the Services have not corrected long-standing deficiencies. The deficiencies include ambiguous and unenforced reporting requirements, ineffective management controls, inadequate configuration management, and ineffective training administration. As a result, the National Command Authorities, the CJCS, and the commanders in chief of the unified commands cannot rely on the SORTS to plan deployments; determine authoritative unit status and location; assess execution of Operations Plans; or make effective, time-sensitive decisions.

SORTS Priorities and Reporting Requirements

Function of the SORTS. CJCS MOP 11 states that the SORTS is designed to support, "in priority order, information requirements related to crisis response planning, deliberate or peacetime planning, and management responsibilities to organize, train, and equip forces for use by the CINCs [commanders in chief]." The policy memorandum further explains that the SORTS "is not intended to function as a detailed management information system," but rather one that provides broad bands of information concerning unit resources and training status so that the CJCS has "necessary unit information to achieve adequate and feasible military response to crisis situations and participate in the Joint planning process."

Crisis Response Planning. A Joint Staff study, "Status of Resources and Training System (SORTS) Crisis/Wartime Requirements Review," October 1990, concluded that the SORTS was ineffective in supporting crisis response planning and decision support systems, such as the Joint Operation Planning and Execution System (JOPES). The study based that conclusion on the ineffectiveness of SORTS during Operation Desert Shield. Specifically, the study stated, "Desert Shield highlighted problems in crisis and wartime SORTS reporting. The lack of timely SORTS reporting hampers effective command and control needs of the Joint Staff, CINCs [commanders in chief], and Services." The results of our evaluation show that the problem remains today.

Accuracy, Timeliness, and Relevancy. As illustrated in Figure 1, those at the highest national and command levels have little confidence in SORTS data. Decision makers cannot rely on SORTS data in the NMCC data base for decisions because of problems related to accuracy, timeliness, and relevancy.

Those problems were initially brought to our attention in response to the announcement of the planned evaluation and were confirmed at each Joint user location visited.

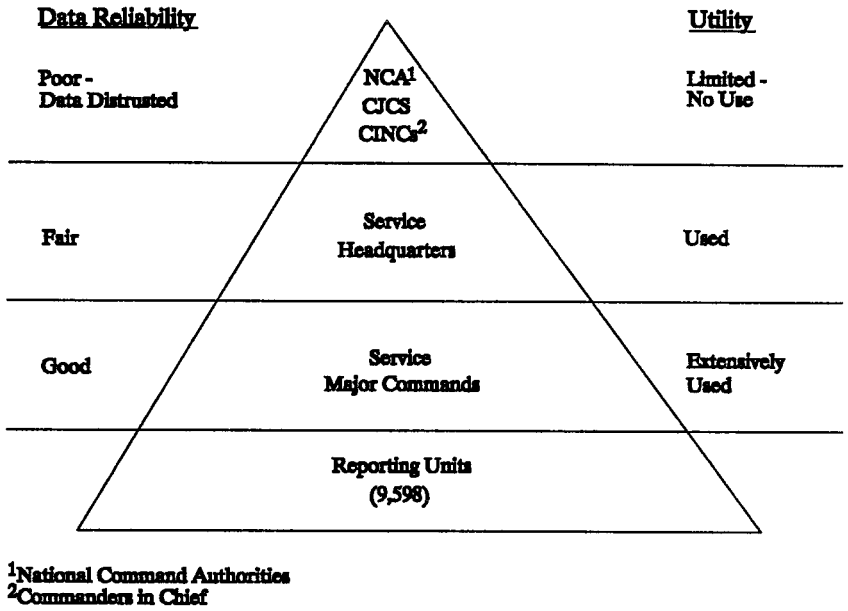


Figure 1. SORTS Use and Perceived Reliability of the Data

Commander in Chief, U.S. Strategic Command, Views Support Reforms. The Commander in Chief, U.S. Strategic Command, informed us in a memorandum dated November 1, 1994, that SORTS reporting requirements are not adequate to support the command's force employment information needs. The commander in chief indicated that SORTS reporting was not accurate or timely for effective decision making during a crisis scenario when time for deciding force employment options decreases. The commander in chief urged that more real-time data be made available. Additionally, the commander in chief did not approve of SORTS category measurements, citing the use of broad C-levels that can be misleading indicators of critical resource availability. The commander in chief recommended a review of C-level criteria in light of changes in resource levels and urged greater involvement of the commanders in chief of the unified commands in determining reporting requirements.

Other Joint User Concerns. During visits to 5 unified commands, we gathered data in 12 categories related to the effectiveness of the SORTS in supporting command needs. Staff representatives brought a host of problems to our attention (Figure 2), the most prevalent of which dealt with deficiencies in the accuracy, timeliness, and relevancy of information available through the NMCC SORTS data base. The staffs repeatedly demonstrated how the SORTS, as configured and functioning, was ineffective in supporting command decision making under any operational environment. For example, the U.S. Special

Operations Command manager for the JOPES estimated that up to one half the SORTS data that supports the JOPES was outdated and incorrect. The manager stated the effects on planners included degradation of deployment planning and assessment of Operations Plans. The JOPES manager at the U.S. Atlantic Command had similar views and added that SORTS data were outdated and distrusted and could not be relied on for immediate decisionmaking. Those concerns were echoed during our interviews with officials in the Office of the Deputy Under Secretary of Defense for Readiness, and by staffs at the NMCC, DISA Resource Monitoring Branch, and Joint Staff. Appendix D summarizes concerns and provides examples of specific problems noted throughout the Joint user community.

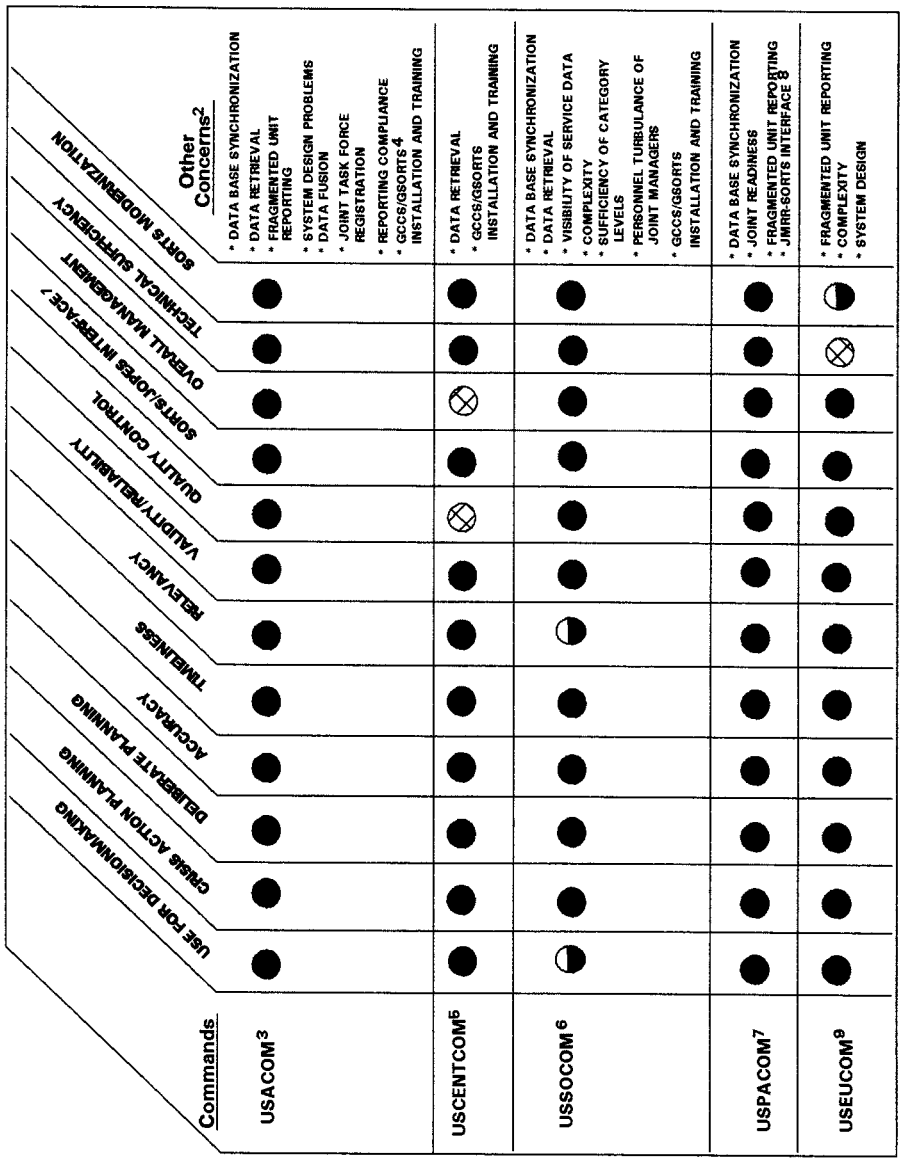
SORTS Tailored for the Services' Use. The Services have structured the SORTS to support their "organize, train, and equip" responsibilities--the third stated priority of the SORTS. Each Service issued implementing instructions for the SORTS that are tailored to satisfy their needs for unit resource and training information. With the exception of the Marine Corps, Service procedures require additional Service-unique information in unit SORTS reports. The following table identifies the total number of Joint and unique SORTS data elements that each Service reports.

SORTS Reporting Elements

Service	Joint Data Elements	Service-Unique Data Elements
Army	127	85
Navy	127	19
Air Force	127	127
Marine Corps	127	0

How the Services Use the SORTS. The Services use the SORTS to identify, confirm, and resolve unit resource and training shortfalls in accomplishing Title 10[4] management responsibilities. For example, the Army SORTS affects virtually every functional management area and system in the Army, such as personnel pay and assignments and unit logistics, supply, and budgeting. The Navy uses SORTS to track historical problems, perform trend analyses, and conduct routine briefings for senior Naval officials. The Air Force and the Marine Corps use SORTS data to identify, confirm, and resolve unit resource and training shortfalls.

[4]United States Code, Title 10, April 1993, authorizes the Secretaries of the Military Departments to conduct the following management functions: recruiting; organizing; supplying; equipping; training; servicing; mobilizing; demobilizing; administering; maintaining; and constructing, outfitting, maintaining, and repairing equipment and facilities.



1 Joint Operation Planning and Execution System.
2 Most concerns discussed later in the report.
3 U.S. Atlantic Command.
4 Global Command and Control System SORTS.
5 U.S. Central Command.
6 U.S. Special Operations Command.
7 U.S. Pacific Command.
8 Joint Monthly Readiness Review.
9 U.S. European Command.

Figure 2. Unified Command Views of Joint SORTS Effectiveness

SORTS Effectiveness. The Services' problems with the SORTS significantly affect the effectiveness of unit reporting. As discussed in detail in Appendixes E and F, those problems are functional and technical and affect all levels of the reporting, review, and decisionmaking processes from unit reporting to the quality of data in the NMCC SORTS data base.

Multiple Data Bases. As a result of multiple data bases, synchronization problems exist with SORTS information. Information available to decision makers at the highest levels through the NMCC SORTS data base differs from the SORTS data bases the Services maintain. That problem is further aggravated because of the absence of effective monitoring and management controls at either the Service headquarters or the Joint Staff to ensure the congruency of information among the systems. Consequently, aged data, in some instances many years old, populate the NMCC SORTS data base (see Appendix D). This long-standing deficiency, described by one unified command headquarters as "monumental," is a major factor for the lack of confidence in NMCC SORTS data.

Complex Procedures. Unit commanders and staff stated that the SORTS was complex, time consuming, and difficult to learn and understand and frequently required interpretation. Those problems are further exacerbated by confusing and outdated procedures and by a fundamental absence of formal training for those who must submit and approve unit SORTS reports. Together, those deficiencies have a negative effect on the standardization, accuracy, and relevancy of SORTS information reported to higher levels. The deficiencies also serve to make an already complex system more complex.

Varying Interpretations of SORTS Requirements. The Services interpret key SORTS reporting requirements for Joint users and implement those requirements to best suit the Services' needs rather than those of the Joint user. The Joint Staff, which serves as the overall manager of the SORTS, has fostered this condition by not clearly defining important SORTS reporting requirements in CJCS directives, by not requiring standardization among the Services, and by not enforcing compliance with requirements. The condition exists despite long-standing Joint user concerns that the SORTS, as configured and operating, was ineffective in meeting Joint user needs. The following examples depict how varying interpretations of reporting requirements affect Joint users.

Army SORTS Reporting Procedures. Although CJCS directives on the SORTS are not clear in defining "timeliness" of reporting, the directives imply that unit reports reach the NMCC in time to be used for crisis response planning. For example, CJCS directives require that units submit change reports within 24 hours of a change in location and status. Army SORTS reporting procedures preclude satisfying that requirement.

o Army procedures require that units submit Unit Status Reports[5] in their entirety in lieu of exception reports intended by CJCS directives. In meeting the requirement for submitting Unit Status Reports, units frequently take days to gather and assess needed data for the reports. For example, one active component unit took a minimum of 5 days to compile its data.

o Army procedures require chain of command review before forwarding Unit Status Reports to the NMCC data base. According to Army Regulation 220-1, "Unit Status Reporting," July 31, 1993, routing and processing of an active component Unit Status Report can take up to 9 working days from the time the unit submits the report until the information reaches the NMCC. The processing time for a Reserve component unit can take as long as 21 days.

By adding preparation time for the Unit Status Reports to the time it takes for that information to process through the chain of command, Army Unit Status Report submissions can take from 16 to 41 days to reach the NMCC. Change reporting, even if it occurred, would not meet the SORTS 24-hour reporting requirement. Army procedural requirements have caused reporting to evolve essentially into a "monthly" reporting system. For that reason, Joint users perceive Army SORTS data as too "untimely" for effective use during time-sensitive operations.

Fragmented Unit Reporting. CJCS directives require the reporting of fragmented (or less than whole) units; however, guidance on that reporting is vague. CJCS SORTS directives require that units create and report separate unit identification codes through the SORTS when unit subelements are deployed "for more than a short duration" and when those subelements are under the operational control of another command. This requirement is intended to give decision makers an accurate view of the location and status of parent units and their deployed subelements. Joint users view this requirement as particularly critical because current operational deployments frequently involve partial units, rather than entire units.

However, the Air Force does not routinely conduct fragmented unit SORTS reporting in accordance with this key requirement. The Air Force reflects fragmented units upon deployment, using the parent organization unit identification codes. Therefore, Air Force SORTS reporting does not clearly indicate to decision makers using SORTS data in the NMCC the actual location and status of Air Force parent units and deployed subelements.

That Air Force policy frustrated staff at Headquarters, U.S. Atlantic Command, in trying to provide unit location information to the commander in chief and senior staff. Headquarters staff specifically singled out Air Force fragmented

[5]The Army SORTS is comprised of two components: the Unit Status Report, which measures unit resource and training status, and the non-Unit Status Report component, which provides general Service and basic identification data elements. Unit monitors prepare Unit Status Reports. Unit Identification Code Information Officers prepare non-Unit Status Reports.

unit reporting as a major problem. Staff representatives gave us demonstrations and computer products showing multiple unit location data for the same Air Force unit identification codes in both the NMCC SORTS and JOPES data bases. The staff stated that the command could not determine the correct status of a unit without contacting either the Air Force component command or the unit. The staff also indicated that the Air Force policy created difficulties in assessing unit support for operations. The staff concluded that the Air Force interpretation of fragmented unit reporting was unacceptable.

Wartime and Contingency Reporting. Although CJCS and Service directives require that SORTS reporting be performed in all operational environments, the Services have difficulty meeting that requirement. According to Joint Staff documents and unified command representatives, SORTS reporting was not effectively implemented during Operations Desert Shield and Desert Storm or during many operational contingencies thereafter. Meeting the reporting requirement is difficult because:

o the SORTS is complex and difficult to use (as previously discussed);

o the Joint Staff, the Services, and the unified commands have not agreed on prioritizing SORTS data elements for different operational environments to speed report processing and to relieve significant reporting burdens on units;

o the Services have not complied with and the Joint Staff has not enforced SORTS reporting requirements; and

o the Joint Staff and the Services have not technically designed the SORTS to take advantage of retrieving SORTS information automatically from other required reports (such as Situation Reports, which are discussed below).

Those deficiencies have been major issues among SORTS users every year since the Joint Staff conducted its special review of SORTS reporting effectiveness in October 1990. The deficiencies remain unresolved.

Joint Users Rely on Other Methods for Unit Resource and Status Information. Because of the described deficiencies, Joint users repeatedly stated that they could not rely on the NMCC data base to obtain authoritative unit status or location information, to plan deployments, to assess the execution of Operation Plans, or to effectively assist in making time-sensitive decisions. Instead, Joint users must contact the Services (in particular, component commands) by telephone or facsimile or use Situation Reports during wartime or contingencies to obtain information for operational decisions. In essence, the SORTS does not have the capabilities specified in Joint Publication 1-03.3 for military operations. As succinctly stated by the staff representative at one of the unified commands, "SORTS is broke."

Management Controls

Management Responsibilities. CJCS MOP 11 and Joint Publication 1-03.3 define common management responsibilities for the Joint Staff, the unified commands, the DISA, and the Services that include monitoring the effectiveness of SORTS reporting and initiating corrective action when necessary. However, those pivotal management functions are not being accomplished for SORTS information in the NMCC data base. Those management deficiencies adversely affect the effectiveness of the SORTS as a decision support tool for senior DoD decision makers.

Monitoring and Data Quality Management. Deficiencies exist in monitoring and data quality management of the SORTS. Figure 3 identifies specific requirements for SORTS monitoring and data quality management as specified in CJCS directives. As illustrated, effective monitoring of the SORTS is lacking to ensure the accuracy of the NMCC SORTS data base. The only function SORTS managers perform at all levels is technical monitoring of SORTS data using automated edit checks. Even then, problems exist.

Joint Publication Requirements	Joint Staff	DISA	CINCs	Services	Problems
Automated Edit Checks	○	○	⊗	○	• Joint edits are not all inclusive. • Joint/Service edits do not match.
Periodic Data Base Reconciliation (Synchronization)	●	●	⊗	●	• Accomplished only once, April 1995. • Problems still exist due to edit checks.
Auditing for Accuracy and Timeliness	●	●	◓	●	• No routine Joint data base checks. • Lack of Joint resources. • Services verify own data base. • No basis for monitoring timeliness; timeliness not adequately defined.
Register/Deregister Units	●	●	●	●	• Fragmented units/Joint Task Forces not registered. • Deactivated units not deregistered. • First Joint data base scrub May 1995.
Correcting Reporting Problems	◓	◓	◓	◓	• Lack of Joint resources. • Noncompliance with Joint directives. • No followup mechanism.
Annual Data Element Revalidation	●	⊗	⊗	⊗	• SORTS conference is identified mechanism – issue discussed, but not resolved.

○ = Occurring ● = Not Occurring ◓ = Partially Occurring ⊗ = Not a Responsibility

Figure 3. Monitoring Responsibilites and SORTS Data Quality Management

Automated Edit Checks. The types of automated edits that SORTS managers use to identify errors in SORTS reports at the headquarters of the Army, Navy,

and Air Force do not match the type of automated edits designed for the NMCC SORTS data base. Those various types of automated edits are the primary reasons for differences among SORTS data bases. Consequently, built-in data synchronization problems exist that necessitate periodic data base reconciliations to ensure the congruency of information.

Data Base Reconciliation. SORTS managers for the Joint Staff, DISA, and Service headquarters have not accomplished periodic data base reconciliations in accordance with guidance in Joint Publication 1-03.3.

One-Time Reconciliation. For example, SORTS managers for the Joint Staff, DISA, and Service headquarters initiated data base reconciliation procedures in April 1995 in an attempt to resolve numerous and long-standing discrepancies among data bases. Joint Staff and DISA SORTS managers described that initiative as a "one-time" event, not a regularly occurring management process.

Results of Synchronization Tests. In June 1995, we performed several SORTS data base synchronization tests to verify the congruency of various SORTS data bases. The tests included an assessment of the accuracy of the SORTS and JOPES interface. The results of the tests, discussed in detail in Appendix G, showed that the Services and NMCC SORTS data bases continue to contain disparities. For example, among the disparities were differences in Army unit SORTS category levels, Air Force equipment locations, and numbers of Navy units reporting. The tests also showed that Navy and Marine Corps units were not performing validation reporting that CJCS directives require. Forty-two percent of Navy units and 19 percent of Marine Corps units we sampled had reports in the system older than the 30-day report validation requirement. The test on the SORTS and JOPES interface showed that SORTS resource data were missing in the JOPES for each of the 20 measured Air Force units tested; the data had been missing for more than 2 months.

Auditing for Accuracy and Timeliness. The Joint Staff, the Services, and the DISA have not established effective mechanisms to periodically sample and audit the content of the NMCC SORTS data base to ensure accuracy, timeliness, and reliability of SORTS reporting. Joint Staff and DISA SORTS managers verify the accuracy of SORTS data only when responding to specific requests from Joint users. Although, the Services perform extensive, labor-intensive audits of their respective SORTS data bases, in particular at the major command level, those audits generally do not involve checking the accuracy and content of data in the NMCC SORTS data base. Headquarters, Department of the Army, SORTS managers do perform a limited check, at least quarterly, of 125 of 5,158 Army unit identification codes.

Unit Registration. As of April 1995, the Joint Staff, the Services, the unified commands, and the DISA had not established effective mechanisms at any level to ensure that units registered in the SORTS were removed from the NMCC data base upon deactivation. As a result, NMCC SORTS data available to senior decision makers were corrupted with outdated information on units no

longer in existence. Immediately after our visit, the Joint Staff initiated procedures to require the Services and the unified commands to validate unit registration and deregistration semiannually.

Correcting Reporting Problems. Although, Joint users occasionally identify and report inaccuracies to the Joint Staff and the DISA for correction, the Joint Staff, the Service headquarters, the unified commands, and the DISA have not established effective processes or mechanisms to ensure that all problems in the NMCC SORTS data base get corrected. For example, DISA SORTS managers informed us they could not adequately track and follow errors in reports to ensure all problems were corrected because of severe resource constraints.

Annual Data Element Revalidation. Although Joint Publication 1-03.3 does not specify how the Joint Staff will accomplish annual data element revalidation, Joint Staff SORTS managers informed us that the Annual SORTS Conference would accomplish that goal. However, the Conference has not effectively met that requirement and has not resolved long-standing problems related to data element sufficiency. For example, tiered (or prioritized) reporting has been a routine item of discussion at past conferences; however, the issue remains open and of significant concern among SORTS users.

Configuration Management

Configuration Review Board. CJCS MOP 11 specifies that the Configuration Review Board (the Board) will perform configuration management for the SORTS under the chairmanship of a representative from the Director for Operations (J-3), Joint Staff. Joint Publication 1-03.3 states that the Board will review, coordinate, approve, prioritize, and schedule functional and technical changes within its authority. However, the Joint Publication does not define that authority. The Board has no charter to define its purpose, function, responsibilities, or members or to specify when the Board should meet. The 1990 version of Joint Publication 1-03.3 had a comprehensive charter specifying each of those areas. Further, from October 1993 through June 1995, the Board did not meet to consider any technical or functional changes even though the SORTS was undergoing modernization and was experiencing significant functional and technical difficulties. Consequently, SORTS managers at the unified commands, the Services, and the DISA, all designated as either voting or nonvoting members or advisors to the Board, were dissatisfied with the effectiveness of the Board and configuration management in general. Examples of that ineffectiveness involved the data base synchronization problem, deficiencies in the SORTS and JOPES interface, the absence of effective automated system monitoring and updating, and technical difficulties encountered during SORTS modernization.

SORTS Modernization Project. The Joint Staff scrapped the modernization plan that the Defense Communications Agency (now DISA) designed and validated in 1990 to implement comprehensive technical changes

to the SORTS. DISA representatives stated that the Joint Staff objective was to cut the time of the modernization in half to save time and money and to pave the way for implementation of the Global Command and Control System (GCCS). Lack of a modernization plan caused unclear modernization objectives; undefined and undocumented requirements; disjointed and uncoordinated actions among Joint Staff, DISA, and Service SORTS managers; frustration for those in the field attempting to implement modernization; and, ultimately, a less capable SORTS. Subsequently, one Air Force major command staff official described the SORTS as ". . . well beyond being not user friendly to the level of being user hostile." Today, the modernization effort that began in late 1993 is still ongoing and problematic (see Appendix C).

SORTS Functional Problems Highly Visible Under the GCCS. Although Joint users and the Services advocate the GCCS and the need for technical modernization of the SORTS, that enthusiasm is lessened by the long-standing functional problems with the SORTS. Headquarters, U.S. Atlantic Command, captured that sentiment in a December 1994 message to the Joint Staff by stating:

> These technical improvements alone will not make SORTS a viable current operations/crisis planning tool. Strict adherence to the reporting guidelines . . . is the primary means to gain greater confidence in and utility from the Joint SORTS data base. Mere compliance with reporting requirements . . . would have a dramatic impact on Joint SORTS contributions to current operations as a useful tool for senior decision makers.

SORTS experts at three unified commands endorsed that view. The SORTS experts emphasized that without improving SORTS data quality, the GCCS would result in the ability of senior decision makers to access bad SORTS data quicker. The command staffs suggested that once the GCCS became fully operational, it would provide the needed momentum for senior leaders to finally resolve long-standing SORTS problems.

Training Management

Joint Staff Guidance. Despite serious SORTS training deficiencies for unit monitors, unit commanders, and command staffs, SORTS managers at the Joint Staff have not identified SORTS training needs for Joint users, provided guidance and direction to the Single Service Training Manager (the U.S. Air Force Air Education and Training Command) and coordinated SORTS training among the Services. That approach is inconsistent with CJCS policy guidance.

CJCS Policy Guidance. Joint Publication 1-03.3 states that the Director for Operations (J-3), Joint Staff, is responsible for implementing the applicable management functions of Joint Publication 6-03.11, "Management Procedures for the Standard ADP [Automated Data Processing] System and WWMCCS [Worldwide Military Command and Control System] Information System,"

May 1, 1987, for supporting the SORTS. The publication directs that offices with primary responsibility for Worldwide Military Command and Control System applications will provide guidance to the Single Service Training Manager on the content of user training and the scheduling of courses and that those offices will review user training curricula on a periodic basis. Despite those requirements, SORTS managers at the Joint Staff are not providing oversight of or direction to the Single Service Training Manager. As a result, training needs and requirements for Joint users are not properly identified or accomplished.

Unit SORTS Monitor Training. Formal training is not available to a large majority of unit SORTS monitors, who have the duty of compiling data and preparing unit SORTS reports. Less than one third of the unit SORTS monitors receive formal training to prepare them for their duties. For example, out of more than 5,000 reporting units, only 534 Army unit SORTS monitors were scheduled through the Single Service Training Manager for classroom training in 1995. The Navy provides no Service-wide training for unit SORTS monitors, even though Navy directives state that SORTS training will be accomplished. Despite a clear need for unit monitor training, 97 percent of those responding to our unit commander survey (Appendix F) stated that unit monitors lacked initial formal training. The majority of unit SORTS monitors learn their duties and responsibilities through inconsistent, informal, and unstructured on-the-job training.

Major command staffs, unit commanders, and unit SORTS monitors of all the Services cited inadequate training as the leading cause of errors in SORTS reporting. For example, Headquarters, U.S. Air Forces in Europe, representatives told us that the lack of training resulted in misinterpretation of guidance and procedures and affected the timeliness of reports. Similarly, representatives from the Atlantic and Pacific Fleets stated that high SORTS error rates (60 percent and 40 percent, respectively) in their commands were predominantly caused by the absence of effective unit SORTS monitor training. Finally, 60 percent of unit commanders responding to our survey attributed reporting errors to the lack of training.

Unit Commander Training. Despite a clear need for SORTS training, the vast majority of unit commanders, who must review and approve the release of unit SORTS reports, do not receive formal orientations or training on the SORTS. In 11 of 14 units visited and in 66 percent of our surveys, there was a strong demand for commander training. Commanders stated that some type of formal unit commander SORTS training or orientation was necessary to provide a basic overview of the purpose of the report and its distribution, to highlight the essential requirements involved in preparing reports, and to explain commander responsibilities. An Air Force unit commander stated, "The commander is ultimately responsible for the readiness or non-readiness of the unit. To not receive training as to the importance of SORTS reporting and the integrity of accuracy required, is an injustice to the unit, and the men and women of that unit." That comment is typical of comments we received.

Command Staff Training. Each unified command and six Service component commands identified a need for increased SORTS training for staffs. Staff

representatives explained that more training was necessary to enhance and expand abilities to use the SORTS for decisionmaking, particularly with the advent of the GCCS (and GCCS SORTS or GSORTS). For example, representatives from Headquarters, U.S. Atlantic Command, indicated that when the GCCS was installed, the staff received no written documentation, no effective user handbook or guide, and only "scant" training on the software. Further, the representatives emphasized that those personnel using the GSORTS must be proficient in database management to produce usable end products for the commander in chief and senior staff. Representatives viewed inadequate staff training as a significant deficiency with GCCS and GSORTS installation. Although the U.S. Air Force Air Education and Training Command implemented a 2-day GSORTS users course for command staffs, three of the four unified commands we visited that had received the training viewed it as inadequate.

Instituting Reforms

System Deficiencies Are Long-Standing. Deficiencies with the SORTS are not new. During our evaluation, we researched 28 General Accounting Office (GAO), DoD, Service, and RAND Corporation reports pertaining to SORTS problems dating to 1984.[6] Also, we reviewed 13 Joint Universal Lessons Learned Reports. Of the 41 reports, 32, including 7 Joint Universal Lessons Learned reports, identified systemic problems that had serious, negative effects on the effectiveness of the SORTS for senior decision makers. A majority of those problems remain today. A synopsis of the DoD, Service, and RAND reports is in Appendix B.

1990 and 1995 Joint Staff Acknowledgments. The Joint Staff has repeatedly acknowledged that long-standing problems with the SORTS needed correction. Those acknowledgments occurred most notably in 1990 and in 1995. At both times, the Joint Staff identified similar problems.

Operation Desert Shield. In October 1990, the Director, Joint Staff, formed a working group to examine the reasons for SORTS ineffectiveness during Operation Desert Shield. The working group concluded that inaccuracies in the SORTS data base and the failure to submit timely SORTS reports resulted from a lack of command emphasis. Neither the Joint Staff nor the Services were enforcing the 24-hour policy for SORTS change reporting. According to the working group, the lack of enforcing 24-hour reporting led to the perception that timely information was not important and that SORTS was a monthly reporting system. The working group stated that "as a result of untimely reporting, the SORTS data base is inaccurate and the NCA [National Command Authorities], Joint Staff, CINCs [commanders in chief], and Services cannot rely on SORTS to satisfy command and control needs."

[6]Research included two reports that applied to the Unit Status and Identity Report, the predecessor of the SORTS.

1995 Joint Warfighting Capabilities Assessment Briefing to the Commanders in Chief. In February 1995, the Vice Chairman of the Joint Chiefs of Staff briefed the commanders in chief in the Joint Warfighting Capabilities Assessment presentation that SORTS is neither timely nor relevant to meet commanders in chief and Joint Staff requirements. The Vice Chairman proposed two options for resolving SORTS problems. The first option was to develop a new system. The second option was to enhance and improve the existing SORTS. The commanders in chief unanimously endorsed the second option. The Vice Chairman proposed a "stairstep approach" to make the SORTS an operational and readiness tool for the commanders in chief and the National Command Authorities. The Vice Chairman identified a four-step action plan to fulfill this purpose:

o enforcing current requirements to improve accuracy and timeliness,

o reviewing the NMCC SORTS data elements to eliminate irrelevant data and to redefine data elements,

o revising CJCS MOP 11 to make policy reflect reality, and

o considering the merger of SORTS reports with Situation Reports to form one Commander's Operational Readiness Report.

Action Plan Guidance. In March 1995, the Director for Operations, Joint Staff (J-3), followed up the Vice Chairman's proposals by outlining the major steps of an action plan in a message to the Secretary of Defense, the unified commands, and the Services. The message referred to two phases.

o First, from March through May 1995, the Joint Staff would complete four actions: enforcing SORTS reporting requirements, eliminating unnecessary data elements, adding new SORTS requirements, and conducting the annual SORTS Conference as a forum to brief the action plan.

o Second, from June through November 1995, the action plan called for revising CJCS MOP 11 and establishing a tiered reporting system for deployed units.

No Comprehensive Action Plan Found. Other than the Vice Chairman's briefing and the J-3 message, no plan exists that contains comprehensive measures needed to resolve long-standing deficiencies; outlines specific objectives, requirements, and milestones; and assigns responsibilities. In fact, when we attended the annual 5-day SORTS Conference in May 1995 with more than 200 other participants from across the DoD, the action plan was not briefed or placed on the agenda for discussion. That omission was contrary to the J-3 message to DoD Components in March 1995.

Turnover of SORTS Managers on the Joint Staff. Personnel turnover in the Joint Staff has hampered effective SORTS management and administration. Two officers manage the SORTS program: one is responsible for SORTS policy, and the other manages the daily operation of the SORTS. Both officers

perform their SORTS responsibilities as a collateral duty. The rotation of officers into those management positions is frequent. For example, the officer responsible for SORTS policy left the position after only 7 months. The officer responsible for the day-to-day operation of SORTS served in the position for only 14 months. Both officers left their respective positions at about the same time, July 1995. Their departures, unfortunately, coincided with a critical juncture in the implementation of the proposed Joint Staff actions to fix system deficiencies.

Management Instability and the Effects of a High Turnover Rate. The high turnover rate and lack of stability at the Joint Staff were viewed as problematic. For example, one representative we interviewed emphasized that the turnover in SORTS managers at the Joint Staff was a major reason for ineffectiveness in resolving long-standing deficiencies with the SORTS. The representative stated that just as problems appeared to be getting resolved, the Joint Staff would change managers, thus halting progress on SORTS improvements. SORTS managers we interviewed at one unified command, three Service headquarters, one major command headquarters, and DISA concurred with that view.

We concluded from our interviews that a policy that allows frequent turnover of SORTS managers on the Joint Staff impedes effective system administration. Substantial time is needed to learn and understand the complexity, problems, and dynamics of the SORTS, particularly if an individual has no prior experience with the SORTS.

Summary

The SORTS is ineffective in supporting the National Command Authorities, the CJCS, and the commanders in chief during crisis response and deliberate planning. The Joint Staff and the Services have not instituted long-needed reforms. Consequently, the DoD has a major management information system, which regularly collects information on more than 9,500 reporting units, that is largely distrusted and ignored at the national and Joint user levels. As shown in Figure 4, the SORTS is plagued by a host of problems that affect the confidence of senior decision makers in using the information. The problems exist despite increasing needs among senior decision makers for reliable, real-time SORTS information brought on by the heightened emphasis on readiness and the advent of the GCCS.

Although acknowledging critical deficiencies with the SORTS as far back as Operation Desert Shield, the Joint Staff has focused management attention almost exclusively on the technical aspects of SORTS modernization. Even though those efforts are necessary, because of the pending implementation of the GCCS, emphasis on resolving long-standing functional deficiencies is also needed. Until very recently, that emphasis has not occurred.

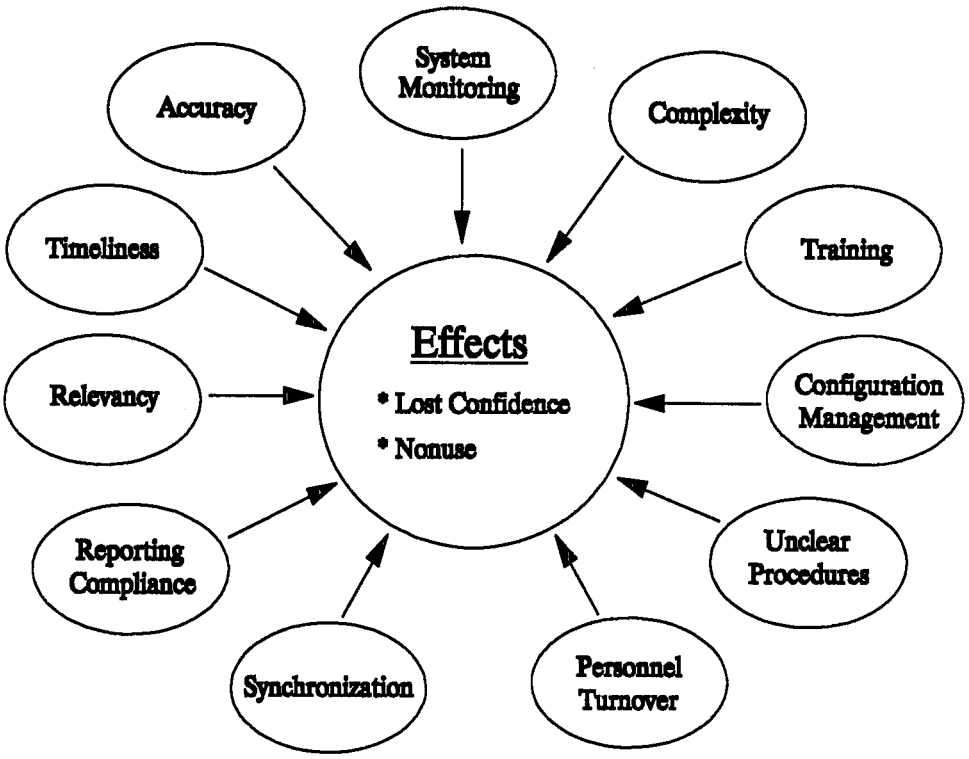


Figure 4. SORTS Deficiencies and Effects on Joint Users

In February 1995, the Vice Chairman of the Joint Chiefs of Staff briefed the commanders in chief that the Joint Staff was implementing an action plan to correct inaccuracies, a lack of timeliness, and relevancy problems with the SORTS. We concur with that approach; however, no comprehensive action plan exists that emphasizes correction of all major problems with the SORTS. The following deficiencies are examples of areas that need consideration:

o clarifying the purpose of the SORTS and its specific uses (is the primary purpose of the SORTS to support the Joint user for command and control, or to support Service Title 10 management responsibilities?);

o reviewing the adequacy and completeness of current SORTS categories and their measurement criteria to ensure support for user needs;

o defining and clarifying SORTS reporting requirements and procedures, which are essential for report compliance;

o standardizing terminology and measurement criteria among the Services to enhance report interpretation;

o improving configuration management and resolving structural problems with reporting that affect the accuracy of SORTS information reported into the NMCC data base; and

o developing more effective monitoring and data quality management tools.

Recommendations, Management Comments, and Evaluator Response

1. We recommend that the Director for Operations, Joint Staff, in coordination with the commanders in chief of the unified commands; the Deputy Chief of Staff for Operations and Plans, Department of the Army; the Deputy Chief of Naval Operations for Plans, Policy, and Operations, Department of the Navy; the Deputy Chief of Staff for Plans and Operations, Department of the Air Force; and the Deputy Chief of Staff for Plans, Policy, and Operations, Marine Corps; and the Director, Defense Information Systems Agency, develop a formal, comprehensive action plan to correct deficiencies in the Status of Resources and Training System. At a minimum the plan should do the following.

a. Determine specific needs and requirements for the National Command Authorities, Chairman of the Joint Chiefs of Staff, and commanders in chief of the unified commands related to information in the Status of Resources and Training System (including a review of the adequacy and appropriateness of reported categories and their range of measurement).

b. Simplify the Status of Resources and Training System to achieve realistic reporting in all operational environments and to relieve the unit reporting burden (for example, reduce the number of reporting elements, implement tiered reporting, and update the National Military Command Center Status of Resources and Training System data base directly from Situation Reports during war and contingencies).

c. Clarify Joint Staff policy and guidance to specify the purpose and uses of the Status of Resources and Training System; identify specific needs and requirements of the National Command Authorities, Chairman of the Joint Chiefs of Staff, and commanders in chief of the unified commands; identify definitive roles and responsibilities; and clearly specify Status of Resources and Training System reporting requirements and procedures.

d. Create a central Status of Resources and Training System data base of record for the National Command Authorities, the Chairman of the Joint Chiefs of Staff, commanders in chief, and Service Chiefs, or develop technical solutions to prevent disparities among various Status of Resources and Training System data bases.

e. Develop oversight mechanisms, such as the Configuration Review Board, that will routinely monitor the effectiveness of the Status of Resources and Training System and resolve functional and technical issues among users.

f. Implement management controls to ensure that Status of Resources and Training System data reported to the National Military Command Center can be effectively monitored for accuracy and compliance.

g. Assess training needs and requirements for all levels of the Status of Resources and Training System user community, and develop appropriate training programs.

2. We recommend that the Director for Operations, Joint Staff; the Deputy Chief of Staff for Operations and Plans, Department of the Army; the Deputy Chief of Naval Operations for Plans, Policy, and Operations, Department of the Navy; the Deputy Chief of Staff for Plans and Operations, Department of the Air Force; and the Deputy Chief of Staff for Plans, Policy, and Operations, Marine Corps, report annually to the DoD Readiness Working Group regarding the effectiveness of the Status of Resources and Training System in meeting the needs of the National Command Authorities, Chairman of the Joint Chiefs of Staff, commanders in chief, and Chiefs of the Services.

3. We recommend that the Director for Operations, Joint Staff, assess personnel assignment policy and methods to provide greater stability to the management of the Status of Resources and Training System.

Under Secretary of Defense for Personnel and Readiness Comments. The Under Secretary of Defense for Personnel and Readiness concurred with the report and recommendations, indicating that several initiatives have been taken to correct a majority of SORTS deficiencies. Those initiatives include the Joint Staff's planned development of the Joint Automated Readiness System; Joint Staff implementation of the SORTS deficiency correction plan; and collaboration among the Office of the Secretary of Defense, the Services, and the Joint Staff, under the auspices of the DoD Readiness Working Group, to review policy concerns and formulate potential courses of action. Those initiatives will be the subjects of reviews by the DoD Senior Readiness Oversight Council in March and May 1996.

Joint Staff Comments. Although only partially agreeing with many of the report's conclusions, the Joint Staff agreed with the general assessment that wide-ranging improvements in the SORTS were necessary. The Joint Staff either concurred or partially concurred with the recommendations. The Joint Staff has a formal, comprehensive action plan in place that encompasses most of the recommendations, with numerous actions already implemented, ongoing, or planned for mid-1996. Those actions include clarification of policy and reporting procedures, reduction in report size, streamlined reporting requirements for deployed units, improved processing procedures and data quality management, and more effective database integration. As the overall agent for the SORTS, the Joint Staff will brief the DoD Readiness Working

Group annually on the status of SORTS improvements. Finally, the Joint Staff has taken already taken steps to consolidate management of the SORTS and to improve management stability.

Army Comments. Although the Army disagreed with conclusions in the report related to deficiencies in timeliness, accuracy, and monitoring of the Army SORTS and unit status reporting, the Army concurred with the general assessment that reporting needed improvement. In June 1996, the Army will revise Army Regulation 220-1, "Unit Status Reporting," July 31, 1993, to improve standardization and clarity of procedures, simplify reporting requirements, and enhance quantitative methods of Unit Status Reports. The Army is also developing new procedures that will provide definitive guidance for personnel performing Basic Identification Data Element reporting, a key portion of the Army SORTS. Further, the Army is reevaluating training requirements for unit commanders and Unit Identification Code Information Officers.

Navy and Marine Corps Comments. In responding for the Navy and the Marine Corps, the Navy did not object to the recommendations, but deferred to the Joint Staff for comment on them in view of the Joint Staff's responsibilities for SORTS policy, procedures, and oversight.

Air Force Comments. The Air Force concurred with the recommendations, commenting that it would work with the Joint Staff to determine needs and requirements, simplify the SORTS, and clarify policy. The Air Force also agreed to report annually to the DoD Readiness Working Group in coordination with the Joint Staff.

U.S. Strategic Command Comments. Although not required to comment, the U.S. Strategic Command concurred with the report and recommendations.

U.S. Army Special Operations Command Comments. Although not required to comment, the U.S. Army Special Operations Command noted that solutions to long-term problems with the SORTS will remain elusive unless the purpose of the SORTS is clearly defined and managed so that necessary policy decisions can be made and enforced. The command cited significant problems with database integration and was critical of the technical design of the SORTS which hampers the accuracy and management of Army information in the National Military Command Center data base.

Evaluator Response. We considered management comments to the report fully responsive. We request that the Joint Staff inform us upon completion of action plan milestones.

Part II - Additional Information

Appendix A. Evaluation Process

Scope

Functional and Technical Management of the SORTS. The evaluation assessed the effectiveness of the functional and technical management of the SORTS from unit reporting to information presentation at the National Military Command Center. During the evaluation, we assessed processes and mechanisms used to compile, report, review, and validate SORTS information. We also evaluated the processes and mechanisms used to administer and manage SORTS training. We based our assessment of system effectiveness on the ability of SORTS to accomplish intended purposes as defined in CJCS MOP 11 and Joint Publication 1-03.3. We performed the evaluation from December 1994 through June 1995.

Methodology

Locations Visited. To accomplish the evaluation objectives, we visited all command levels. We visited the headquarters of the Army, the Navy, the Air Force, and the Marine Corps; 14 Service units (including Reserve components); 13 major and intermediate commands; 5 unified command headquarters; the SORTS Single Service Training Manager at Keesler Air Force Base; the Defense Information Systems Agency; and the Joint Staff. Also, we attended the 1995 Annual SORTS Conference. We conducted those visits from December 5, 1994, through May 5, 1995. A complete list of organizations visited or contacted is in Appendix I.

Interviews and Reviews. Our interviews focused on the uses of the SORTS by senior decision makers and SORTS management roles and responsibilities, policy and procedures, reporting requirements, configuration, and training. Additionally, we reviewed policy and procedures used to compile SORTS reports and to manage SORTS functional and technical requirements. We also reviewed computer-processed data from the NMCC and Service SORTS data bases.

Unit Commander Survey. We supplemented unit visits by surveying 600 Active and Reserve units of the Services worldwide. The purpose of the survey was to further define and clarify SORTS reporting problems and issues. We received 349 responses to the survey. We conducted the survey during January, February, and March 1995. Appendix F summarizes our survey results and analysis.

Data Base Synchronization Tests. In June 1995, we performed synchronization tests of SORTS data bases at the NMCC, three unified commands, and headquarters of the Army, Navy, and Air Force. The tests

involved each of the participants simultaneously executing a retrieval of the same data elements from their respective data bases using a common list of units. The tests provided information on reporting frequency, timeliness, and accuracy of the various SORTS data available to senior decision makers. In performing the data base synchronization tests, we did not use statistical sampling procedures or make statistical projections, even though unit identification codes were selected randomly. Appendix G discusses test results.

Prior Coverage Assessment. We researched 28 studies, audits, and inspections dating to 1984 that assessed the effectiveness of certain aspects (for example, personnel, training, and equipment reporting) of the SORTS or its predecessor, the Unit Status and Identity Report. Appendix B is a synopsis of prior coverage.

Appendix B. Summary of Previous Coverage

General Accounting Office

GAO Report No. NSIAD-95-29 (OSD Case No. 9761), "Military Readiness--DoD Needs to Develop a More Comprehensive Measurement System," October, 27, 1994. The GAO stated that, according to Joint Chiefs of Staff and DoD officials, the definition and measures of readiness that are available in the SORTS are no longer adequate in the today's national security environment. Specifically, the SORTS does not consider all factors that the Joint Chiefs of Staff considers critical, provide warning of impending reductions in levels of readiness, and provide data on joint readiness. The GAO highlights several deficiencies with the SORTS, such as the lack of objectivity and unreliability of training assessments.

The GAO recommended that the Secretary of Defense direct the Under Secretary of Defense for Personnel and Readiness to develop a more comprehensive, comparable, and predictive readiness measurement system to be used DoD-wide.

DoD did not concur with the GAO overall assessment of the value of SORTS information or conclusions concerning the reliability of training ratings in the SORTS.

GAO Report No. NSIAD-92-208 (OSD Case No. 9083), "Operation DESERT STORM--War Highlights Need to Address Problem of Nondeployable Personnel," August 31, 1992. Relative to the SORTS, the GAO found that nondeployability problems were exacerbated by systemic weaknesses in the peacetime screening of Active and Reserve personnel and by inadequate reporting of nondeployables as part of normal readiness reporting. The GAO stated that SORTS reports masked the true readiness of individual units. This specific problem applied to the Army, which made many changes to status reports at the onset of Operation Desert Storm because soldiers who were identified as deployable were, in fact, nondeployable. The GAO was also critical of standardization problems that resulted from inconsistent interpretations regarding who was nondeployable and from the commanders making individual judgments concerning unit overall readiness.

The GAO recommended that DoD strengthen the SORTS to require the Services to more accurately report the effects of temporary and long-term nondeployable personnel. The DoD nonconcurred, stating that SORTS was not designed to be a management information system to report on detailed personnel issues of a particular unit.

GAO Report No. NSIAD-92-175 (OSD Case No. 9019), "Operation DESERT STORM--Full Army Medical Capability Not Achieved," August 18, 1992. The GAO concluded that the Army had to overcome significant problems in making medical units operational before the start of the ground war. For example, many doctors and nurses in Active, Reserve, and

National Guard units who were scheduled to deploy could not do so for a variety of reasons. One of those reasons was that Army Unit Status Reports did not accurately reflect personnel deficiencies as required by Army regulations.

The GAO recommended that the Army establish effective controls to ensure accurate reporting of unit personnel conditions, including deployability and the ability of personnel to perform their occupational specialties and wartime missions. The DoD concurred, stating that the Army is issuing changes to its readiness reporting system to require that physicians be assigned to field units based on training and skills required for the positions.

GAO Report No. T-NSIAD-92-36 (OSD Case No. 8919-A), "Operation DESERT STORM--Army Guard Combat Brigade War Lessons Reflect Long-Standing Problems," May 5, 1992. The GAO stated in testimony to the Congress that Army readiness information on National Guard units mobilized for the Persian Gulf conflict was generally unreliable. With respect to Unit Status Reports, the GAO noted the following long-standing weaknesses.

o Commanders were not required to report shortages of certain equipment items.

o Commanders' use of equipment substitutions sometimes did not meet the needs of the units.

o Commanders could report personnel requirements as being filled, even though assigned personnel did not have the required specialties or skills.

o Brigade Unit Status Reports did not reflect the brigades' current status because of the differences in when units reported on their status.

GAO Report No. NSIAD-92-67 (OSD Case No. 8919), "Operation DESERT STORM--Army Had Difficulty Providing Adequate Active and Reserve Support Forces," March 10, 1992. The GAO found that Army data in Unit Status Reports were "unreliable," making it more difficult to quickly identify the unit readiness to deploy. Army officials identified specific weaknesses in unit status reporting that led to extensive consultations at various levels to determine the true status of individual unit readiness.

o One problem involved equipment reporting that authorizes commanders not to report shortages in certain items in some cases. A second problem involved the allowed practice of commanders reporting substitutions of required items of equipment, permitting older items to fill requirements.

o U.S. Forces Command officials stated that reporting procedures for personnel also posed difficulties in ascertaining the true status of unit readiness. For example, officials noted that, although the readiness reports of National Guard medical units showed that some position requirements had been filled, personnel possessing specialities other than those needed often filled those positions.

o As a result of those problems, Army officials stated that they could not rely on the Unit Status Report as a valid indicator of readiness.

The Army told the GAO that its regulation on Unit Status Reports was being revised to alleviate the problems. The revision would phase out exempting items of equipment, change the frequency of unit status reporting by Army Reserve units to match the quarterly requirement of the National Guard, and revise the list of items of equipment that could be substituted.

The GAO also highlighted other problems. The GAO found that the Army was hampered in providing effective predeployment training to activated units because the Army could not rely on unit training assessments as valid indicators of unit training needs. The GAO was also critical of the lack of standard criteria for validating unit proficiency at different mobilization stations.

GAO Report No. NSIAD-92-54 (OSD Case No. 8818), "DESERT SHIELD/STORM--U.S. Transportation Command's Support of Operation," January 9, 1992. The GAO reviewed the effectiveness of the U.S. Transportation Command in moving personnel, equipment, and supplies in support of Operation Desert Shield. Although the GAO did not mention the SORTS, the GAO emphasized the importance of maintaining a timely and accurate flow of information on the size, composition, and status of military forces to the JOPES. The GAO highlighted a number of problems, including the poor integration of the JOPES with Service systems and data bases used to determine and monitor unit movement requirements; the lack of trained and proficient operators; and inaccurate and incomplete information, which resulted in erroneous movement requirements, inefficient use of transportation assets, and forced revisions to movements. Consequently, the GAO stated officials relied extensively on informal, personal communication and manual methods to develop transportation schedules. The DoD concurred with the findings.

GAO Report No. NSIAD-91-263 (OSD Case No. 8769), "National Guard--Peacetime Training Did Not Adequately Prepare Combat Brigades for Gulf War," September 24, 1991. Relative to Army unit status reporting, the GAO reviewed the adequacy of premobilization training and preparedness of three National Guard roundout brigades activated during Operations Desert Shield and Desert Storm. The audit found Army officials skeptical of the accuracy of the brigades' reports, which proved "far short" of capturing true unit status. After the brigades were activated, active Army trainers substantially revised training plans, calling for more than three times the number of training days estimated in training reports. The GAO recommended that the Army take several actions to improve training and combat readiness validations.

In response, the DoD nonconcurred with the GAO recommendation to develop separate systems for evaluating readiness of Active and Reserve components. The DoD indicated that the Army was developing combat readiness validation procedures for future mobilizations.

GAO Report No. NSIAD-91-72 (OSD Case No. 8544), "Army Training--Evaluations of Units' Proficiency Are Not Always Reliable," February 15, 1991. The report concludes that training readiness in Unit Status Reports of

Active Army units may be overstated. The GAO stated that training information provided to higher commands and the Joint Chiefs of Staff is of limited value because the assessments are based on training conducted primarily at home stations and may not adequately consider the effect on unit proficiency by the loss of key personnel. The GAO also concluded that evaluations of National Guard units during annual 2-week training periods are even more limited. The GAO recommended that combat training center results, rather than home-station training, become the baseline assessment, with subsequent assessments factoring in the results of home-station training and other training-related information.

In response, the DoD agreed that better linkages between unit training activity and readiness reporting systems need to be developed. The DoD nonconcurred with basing training ratings on combat training center results.

GAO Report No. NSIAD-90-186 (OSD Case No. 8245), "Military Airlift--Peacetime Use of War Reserve Spares Reduces Wartime Capabilities," June 25, 1990. The report was critical of the Air Force for not accurately reporting the availability of spare parts for C-5 and C-141 aircraft units in their SORTS reports. Inaccurate reporting resulted from Designed Operational Capability statements, the basis for Air Force unit assessments in the SORTS, specifying a "fight in place" versus a "deploy to fight" wartime mission. The GAO also states that reported information on the availability of base-level sufficiency spares was generally overstated. The GAO concluded that the Joint Chiefs of Staff did not have an accurate indication of C-5 and C-141 unit status and, therefore, was limited in its assessment of the Military Airlift Command's status and level of resources.

The DoD generally concurred with the GAO, commenting that actions to develop more accurate reporting on the status of war reserve spares was in progress.

GAO Report No. NSIAD-86-72 (OSD Case No. 6968), "Measuring Military Capability--Progress, Problems, and Future Direction," February 24, 1986. The objective of the review as pertains to unit status reporting was to identify potential modifications to the Unit Status and Identity Report system to make it a more uniform, comparable, and objective indicator of the readiness of personnel and equipment.

The GAO indicated that although the reporting system was not intended to measure all variables (such as measuring the effects of qualitatively different weapon systems) that affect unit readiness, the system was an important readiness indicator and management tool. The GAO cautioned against using the reporting system for comparing readiness among the Services. The GAO stated that differences in interpretations and the lack of uniformity among the Services in implementing Joint Chiefs of Staff guidance and policy had the potential to make intra-Service comparisons misleading. The GAO also noted that "Although DoD has repeatedly pointed out that UNITREP [Unit Status and Identity Report] was never intended to be used as a comparative tool, it is the only common multiservice [sic] data system measuring readiness." Hence, the

GAO concluded that there will probably be a tendency to use the system for that purpose. The GAO also recognized that each Service maintained its own data base for the Unit Status and Identity Report.

The GAO recommended the following improvements.

o Link Reserve component readiness status to that of the parent unit.

o Prepare two ratings, one for the commander's subjective assessments and one for actual measurements. The GAO was critical of the subjectivity allowed in reporting, stating that subjective changes could affect the validity of comparisons not only among but within the Services.

o Display the extent of Army equipment substitutions to help identify shortages of required equipment and to improve the validity of comparisons of the equipment status of like-type units.

o Make Army personnel measurements for skill level qualifications consistent with the detail reported by the other Services and more meaningful for decision makers.

o Establish objective criteria for reporting training levels. This recommendation specifically focused on the Army and the Marine Corps reporting systems and was believed necessary to enhance the validity of comparing the readiness of like-type units.

The DoD provided no comment on the study. Similar conditions with the SORTS exist today.

GAO Report No. NSIAD-84-39 (OSD Case No. 6283), "The Unit Status and Identity Report (UNITREP) System--What It Does and Does Not Measure," March 12, 1984. The study showed that although the Unit Status and Identity Report (the predecessor of the SORTS) was a useful management tool in peacetime to support some deployment decisions, trend analyses, and resource allocations, the report was of very limited use in determining unit availability during a crisis because of problems in accuracy, timeliness, and validity. The study cited limitations to the reporting system as well. Those limitations were the lack of visibility of nondeployable units that support mobilization, the lack of consideration of all resources needed to support unit deployment and mission accomplishment (for example fuel and munitions), and differences in Service implementation of reporting criteria that allow for subjectivity in assessments and the potential for masking critical resource shortfalls.

The DoD provided no comment on this study. Similar conditions exist with the SORTS today.

Office of the Inspector General, DoD

Inspector General, DoD, Inspection Report No. 94-INS-06, "United States Southern Command," June 9, 1994. The report states that the U.S. Southern Command does not use SORTS data for three reasons. First, the SORTS provided no additional data for in-theater units than was available from Situation Reports and component readiness briefings. Second, the accuracy of the SORTS was questionable. Third, the command had no need to monitor the readiness of units outside its theater because the supporting commander in chief provided ready units.

The inspection report discusses the following.

o The usefulness of SORTS data was significantly limited when comparing the capability of units from different Services. The report states:

> . . . each Service specifies differently how the resource ratings are to be calculated to meet the general requirements specified by the Joint Staff. . . . differences in measurement criteria between the Services made effective comparison of the readiness of units from different Services difficult. The ratings for similar units from different Services, with similar resource status, would not necessarily be equal. . . . the differences among the Service reporting practices make it difficult for the CINC [commander in chief] to use the resource ratings provided by SORTS to evaluate the ability of assigned units to accomplish their missions.

o The command's decision to not monitor SORTS data was contrary to the requirements of Joint Publication 1-03.3, which requires the combatant commands to monitor SORTS reports submitted by their subordinates to ensure accuracy and validity.

o SORTS reports presented a "misleading picture" of unit capability. For example, the inspection cited unit equipment reports that overstated capability such as Army unit misuse of substitution and "in lieu of" procedures and an Air Force unit reporting all its equipment as available when spare parts were not on hand. The inspection report also states that SORTS procedures allowed units to report deployed personnel and equipment as "available." For example, the inspection report references Marine Corps "restructured" personnel calculations and Air Force procedures that permitted deployed personnel from as far away as Saudi Arabia to be reported at home station.

The inspection report recommends that "The USSOUTHCOM [U.S. Southern Command] designate a single office to collect, analyze, review, monitor, and evaluate all available readiness information on a continuing basis. At a minimum, the office should collect and analyze SORTS data. . . ." The command nonconcurred, stating that SORTS data analysis was the purview of the component commands.

Inspector General, DoD, Inspection Report No. 93-INS-13, "Medical Mobilization, Planning, and Execution," September 30, 1993. In relation to SORTS reporting, the inspection identified the following.

o The DoD oversight of medical preparedness planning was hampered by various problems in medical readiness reporting. The readiness information systems did not support medical mobilization decisions, and the information contained in those systems did not accurately reflect the capabilities of medical units. As a result, planners were not able to assess the actual status and usability of medical units.

o The existing C-level rating scheme was a poor measurement of unit status. The inspection report states that a system based on aggregate staffing levels can prove to be very misleading in measuring readiness.

o Problems existed with SORTS rating procedures for equipment. The report cites examples of water systems and communication equipment (such as FM radios) in Army medical units not being rated as essential items. However, if the water systems or communication equipment was missing, the entire capability of a field hospital would be degraded.

o Differences in reporting practices within the Services cause results to vary widely, especially in the area that requires commanders to report estimates of overall unit C-levels. For example, the Navy did not allow any subjectivity, while the Air Force allowed unit commanders to change the overall C-level based on the subjective assessment of how they believed their units could perform. The methods in which the Services report personnel training also varied widely.

o The status codes that summarize unit condition were determined from a complex series of comparisons and aggregations. Despite that complexity, the task was frequently accomplished by individuals who lacked the training to correctly interpret the manual and the many specific rules and exemptions. That situation, the inspection report concludes, almost ensures that individuals will interpret existing conditions differently. As a result, the readiness information in SORTS is often inaccurate.

Given the preceding problems, some organizations elected not to rely on or use SORTS as an oversight vehicle. One member from the Army 7th Medical Command noted that the SORTS "is not used at any level to manage anything." Various DoD and Service personnel recommended that the SORTS be streamlined and simplified.

The Inspector General recommended that the Joint Staff establish a mechanism to periodically evaluate the accuracy of the Service medical readiness ratings and reporting practices for the SORTS and to correct problems as they were found. At a minimum, the mechanisms should deal specifically with the following systemic issues:

o validity of selected indicators to reflect "go-to-war" capability of the unit;

o completeness of reports with respect to the identification of mission-critical items and inclusion of all reinforcing and sustaining units; and

o timeliness and accuracy of information, and uniformity of reporting across Military Services.

The Joint Staff nonconcurred, stating that the vast majority of the purported inaccuracies were based on what the inspection team wanted to see in the SORTS as opposed to what policies and procedures required. The Joint Staff also stated that the Services were responsible for monitoring the SORTS for accuracy, timeliness, and validity. The DoD and Service Inspectors General are responsible for evaluating the execution of those responsibilities.

Inspector General, DoD, Audit Report No. 93-083, "Status of Resources and Training System Reporting by National Guard and Reserve Units," April 22, 1993. The principal objective of the audit was to evaluate whether SORTS reports adequately portrayed the status of personnel and equipment and supplies on hand in National Guard and Reserve units mobilized for Operations Desert Shield and Desert Storm.

The audit concluded that procedures for calculating the status of personnel and equipment and supplies on hand for SORTS reports did not ensure that actual status was reported. The report states:

> If SORTS reporting procedures are not corrected and if a high number of SORTS reports continue to be based on faulty data as identified in this audit, future deployment decisions could be adversely affected and harmful delays in mobilization and deployment may result.

Specific findings were as follows.

o The Services reported unqualified personnel as qualified and did not separately assess personnel most critical to the accomplishment of unit missions.

o Service personnel did not prepare SORTS reports in compliance with Service regulations, guidance on processing SORTS data was inadequate, oversight reviews were not made, and personnel processing data were untrained. For example, both audited naval Reserve units submitted inaccurate reports because of the lack of training. The report recommends that the Navy initiate training for unit personnel responsible for preparing SORTS reports. The Navy concurred, but did not specify when and how the training will be provided.

o The Army permitted an "unnecessary degree of subjectivity" in reporting training levels.

o Joint Staff SORTS reporting instructions and Service implementing procedures for calculating the status of equipment and supplies on hand for

SORTS reports did not ensure that the actual status was reported for units mobilized for Operations Desert Shield and Desert Storm. Accordingly, the audit suggested the following.

> Future decisions by the Joint Staff and the Services could be based on information that does not depict the actual status of equipment and supplies on hand, and harmful delays in mobilization and deployment could result if the SORTS reporting process is not revised.

The report recommends that the Army; Navy; Air Force; Marine Corps; and Director, Joint Staff, revise the criteria governing SORTS reports. The audit report states, "We continue to believe that changes to SORTS criteria are necessary to ensure that the Joint Staff and Service decision makers receive reliable data." The audit report also recommends that SORTS reports comply with instructions and that essential equipment needed by the Services be determined.

Inspector General, DoD, Inspection Report No. 93-INS-05, "United States Forces Command," December 22, 1992. The report highlights problems in automated systems used to develop routine readiness assessments for units. The report cites problems at four of five mobilization stations that included outdated, inaccurate, and missing reports, and managers who did not understand the information in the reports.

The report also referenced key problems with the Army Unit Status Report system that had gone uncorrected since 1989, when the Department of the Army Inspector General issued the "Special Inspection Report on Readiness Reporting." Those problems were:

- o use of a complex governing regulation;
- o historical, not real-time, data;
- o distortion of readiness ratings (C-ratings) due to the inconsistency of policy on nonreportable line item numbers;
- o lack of training in the preparation and use of the report; and
- o lack of secured lines for updates.

Inspector General, DoD, Inspection Report No. 93-INS-01, "United States Special Operations Command," November 10, 1992. Relating to the SORTS, the inspection found that no policy was in place to designate a focal point in the U.S. Special Operations Command for overall analysis of SORTS reporting. The report recommends that the command assign that responsibility or establish an Evaluation and Analysis element within the command. The command partially concurred.

Inspector General, DoD, Audit Report No. 92-123, "Chemical and Biological Defense Readiness Reporting," June 30, 1992. The report states that SORTS reports do not provide specific data on chemical and biological

defense to support operational decisions. Chemical and biological defense data in the SORTS are commingled rather than reported individually for determining category levels for equipment and training. Therefore, the status of chemical and biological defense equipment and proficiency training is not readily available through the SORTS.

The audit recommended that the Joint Staff modify the SORTS to include equipment status and unit training proficiency levels for chemical and biological defense. The Joint Staff partially concurred. The Director, Joint Staff, stated that the Joint Staff would modify SORTS policy to provide a mechanism to report chemical and biological defense equipment and training status, but the policy would not include a requirement to report all equipment lines and mission-essential tasks.

Inspector General, DoD, Audit Report No. 92-029, "Capability of Reserve Component Intelligence Units to Satisfy Wartime Requirements," December 23, 1991. The report states that the status of National Guard and Reserve intelligence units was not accurately reflected in the SORTS. SORTS reports did not provide decision makers with reliable information on the number of personnel in National Guard and Reserve intelligence units that were eligible to deploy or on whether deployable personnel were qualified and properly cleared for the billets they occupied. The audit recommended that the Joint Staff revise CJCS MOP 11 to establish a uniform measuring criteria for the Services in reporting the status of National Guard and Reserve intelligence units. The Joint Staff nonconcurred, stating that the report provided no evidence that the status of intelligence units was inaccurately reported.

Inspector General, DoD, Audit Report No. 91-108, "Capabilities of Early Deploying Guard and Reserve Units," July 3, 1991. The report states that the SORTS has evolved into a complicated, time-consuming reporting system. The specific data to be reported and the resources to be measured vary among and within the Military Departments. The report also noted that because the data reported in the SORTS are widely perceived as a measure of unit commander effectiveness, there was a natural tendency to portray the status of a reporting unit in the best possible light.

The audit concluded that the data in the SORTS were unreliable for determining whether a unit is resourced or trained to perform its mission. Other conclusions follow.

o Personnel Measurement Criteria. The measuring criteria for personnel status in the SORTS can mask mission-degrading shortages. Specifically, calculations of large numbers of personnel in some critical specialties could mask shortages of personnel in other critical specialties.

o Equipment Measurement Criteria. Authorized exceptions and exclusions to SORTS reporting requirements permitted the submission of inaccurate reports of unit status. As a result, resource managers and commanders could base decisions on incomplete or misleading data. The report discussed Army procedures that limited reporting of mission-critical equipment required to function in combat, excluding items such as communications

equipment, cryptographic equipment, and night vision devices from SORTS reporting. The audit pointed out that in their category measurements, Air Force aircraft units were not determining the condition of important support items, such as material handling equipment and mobility bags.

o Training Measurement Criteria. Measuring training for the Selected Reserves based on the number of days of training required to become fully mission capable or on the percentage of unit training completed are too subjective to be useful because of high personnel turnover and limited training opportunities.

The audit recommended that the Joint Staff change SORTS measurement criteria in CJCS MOP 11 to eliminate the deficiencies. The Joint Staff nonconcurred, stating that sufficient evidence was not provided to show that the SORTS data base did not accurately reflect the status of units.

Joint Staff

Status of Resources and Training System Crisis/Wartime Requirements Review, November 1990. The Director, Joint Staff, initiated this review in October 1990 because of noncompliance with SORTS policy and problems encountered with SORTS reporting during Operation Desert Shield. A Joint Staff Working Group met over a 3-week period to study the system.

The working group concluded the following.

o Inaccuracies in the SORTS data base and the failure to submit timely SORTS reports stemmed from a lack of command emphasis. Neither the Joint Staff nor the Services were enforcing the policy of 24-hour SORTS reporting. The lack of enforcement led to the perception that timely information was not important or that SORTS was a monthly reporting system. The working group stated that "as a result of untimely reporting, the SORTS data base is inaccurate and the NCA [National Command Authorities], Joint Staff, CINCs [commanders in chief], and Services cannot rely on SORTS to satisfy command and control needs."

o No prioritization scheme existed among data elements; all 127 elements that Joint Publication 1-03.3 requires were given equal weight in SORTS reporting, regardless of operational environment.

o Arduous and complex computation methods were used by some Services to determine category levels. For example, the working group stated that "using the entire table of organization and equipment to compute a broad band C-level serves management needs, but is not command and control sensitive." The working group indicated that despite the 10 to 15 percent C-level bands, the Services, to varying degrees, use minute calculations to arrive at an appropriate answer. The working group suggested that "the

Services, especially the Army, should limit the types of items used to calculate C-levels," and "not all occupational specialties need to be considered critical."

o There was a "lack of train-to-fight mentality." For example, the working group stated that U.S. Forces Command was not trained or equipped for 24-hour crisis reporting. Units and U.S. Forces Command viewed Army SORTS as a monthly management system.

o Service-unique computer systems "hamstring" flexibility. The Army does not recognize exception reporting. The Army had an all-or-none reporting system, which included 105 Army-unique data elements.

To address those problems, the working group concluded that any solution to SORTS reporting problems must emphasize command and control needs, have a realistic and achievable reporting frequency, limit the number of reporting units during a crisis, reduce computation burdens, include a validation mechanism to ensure confidence in the data base, and have senior leadership support.

The Study Group proposed:

o implementing a three-tier reporting scheme that streamlines reporting to lessen the reporting burden on units and to support time-sensitive command and control planning decisions in peacetime, crisis, and war; and

o directing the Services to perform a review of C-level computation methods at the unit level, considering which Service-unique elements were necessary in order to reduce the reporting burden on units, and report their results.

Although a majority of the commanders in chief and Services supported the tiered-reporting concept, the Joint Staff indicated that "mixed reviews necessitated a slower approach to implementing major changes." Also, there was no consensus among the Services on what method or data elements to use for validation. The Joint Staff indicated that detailed staffing of proposed changes was necessary, followed by discussion of the issues at the May 1991 Annual SORTS Conference and SORTS testing. Finally, the Joint Staff concluded that implementing changes in light of Desert Shield would "cause extreme confusion with little gain."

Department of the Army

Special Assessment of Operation DESERT SHIELD/STORM Mobilization, December 1991. The inspection determined that unit status reporting overstated unit status and was inadequate for use in selecting units to be mobilized and for planning improvement to post mobilization readiness. The report states that the deficiencies had been documented in the Army Inspector General "Special

Inspection Report, Readiness Reporting Systems (RS2)," July 6, 1989. That July 1989 report concluded that equipment reporting policies distorted readiness and that units appeared more ready than they were.

Mobilization Followup Inspection, February 1990. This inspection was performed from July through December 1989 as a followup of the 1986 Army Inspector General Special Inspection of Total Army Mobilization. Army inspectors found that Reserve component units inaccurately reported unit personnel requirements. The inspection also found that many units did not have adequate mission guidance and approved Mission Essential Task Lists. These deficiencies affect the training of Reserve component units.

Special Inspection Report, Readiness Reporting Systems (RS2), July 6, 1989. The inspection focused on the effectiveness of procedures, validity, uses, and the confidence of commanders and staff in using Unit Status Reports and Material Condition Status Reports. The inspection team visited or polled about 300 units, 5 percent of Army reporting units.

Army inspectors encountered a frank and open command climate in the Army that encouraged accurate Unit Status Reports; nonetheless the inspection report cited a number of problems with the Unit Status Report system. Key comments follow.

o "The USR [Unit Status Report] may well be the Army's most complex and comprehensive report. Its effectiveness hinges on the field's ability to understand the intent and procedures in AR [Army Regulation] 220-1, the governing regulation."

o Army Regulation 220-1 is "ambiguous, complicated, and widely supplemented," and should be rewritten to make it more useful and effective.

o "A number of factors distort unit status. . . . Distortions appear in all three of the report's [Unit Status Report] major categories: personnel, equipment, and training."

o "Rules for deriving the data are so restrictive that personnel problems are transparent to the C-levels." Most problems are visible only by reviewing the commander's comments. Further,

> Personnel status can be overstated because of the way the report asks for senior grade percentage and MOS [Military Occupational Specialty] qualifications. Senior grades include E5 through E6. MOS qualification counts only the first three digits of the MOS, ignoring the often critical additional skill identifier.

o The Unit Status Report "is ineffective at portraying the actual status of units' mission essential equipment in comparison to full wartime requirements. The policy on nonreportable line item numbers, the appropriateness of substitutes, and problems with equipment coding all contribute to the report's ineffectiveness." The Army Inspector General indicated that many units using nonreportable line item numbers appear more ready than they are.

o The Army report indicates that Unit Status Report procedures provide commanders "tools to address such problems by permitting commanders to upgrade or downgrade. Interestingly, however, very few avail themselves of this tool even though sixty-one percent of those we surveyed believed the equipment policy flawed and our reporting system lacks integrity."

o "Many of the substitute and in-lieu-of items of equipment included in unit status reporting do not qualify as suitable substitutes and thus overstate equipment status. That special category of items is really unnecessary and tends to complicate status reporting."

o "The subjective nature of the training portion of the USR [Unit Status Report] poses particular difficulties for young commanders."

o The timing of the reports causes some units to submit projection of status rather than actual status.

o Army Regulation 220-1 gives commanders an option to downgrade their overall unit status if they believe measured resource levels misrepresent actual conditions in their units. The Army Inspector General found great reluctance to do this and observed very few instances where C-levels were lowered.

The Army Inspector General made recommendations for improving the effectiveness, validity, and usefulness of the Unit Status Report to enhance the confidence of the commanders in the Army unit status reporting system.

Department of the Navy

Marine Corps Combat Readiness Evaluation and Reporting, Audit Report No. 026-S-92, March 17, 1992. To determine whether personnel and training data reported in the SORTS were accurate and reliable, the audit reviewed 18 combat units' SORTS reports dated from November 1989 through August 1990. The audit concluded that units reported accurate C-ratings for training and personnel.

Marine Corps Reserve Equipment Readiness Reporting and Mobilization Plans and Preparations, Audit Report No. 010-C-92, December 9, 1991. To evaluate accuracy of SORTS reporting, the audit compared input data for 201 Selected Reserve Units and 2 Marine Corps Logistics Bases with data on the 4th Marine Division and the 4th Marine Aircraft Wing. The audit also reviewed the adequacy of management controls in the 4th Marine Division and 4th Marine Aircraft Wing.

Auditors found that equipment information in 123 (61 percent) of 201 unit SORTS reports was inaccurate, resulting in the Joint Chiefs of Staff and Marine Corps receiving inaccurate readiness data for 21 battalions and 8 squadrons. The data were inaccurate because:

o the 4th Marine Division and the 4th Marine Aircraft Wing redistributed resources on paper that presented more favorable readiness levels,

o the 4th Marine Aircraft Wing made unauthorized changes to authorized table of equipment quantities, and

o errors remained in computer-generated documents.

Marine Corps management did not identify, prioritize, or correct management control weaknesses for SORTS reporting as required by the oversight system established by Marine Corps Orders. Consequently, management either did not know or did not take action when SORTS reporting was inaccurate.

The report recommends that the Commandant of the Marine Corps require management control program reviews of the SORTS. The Marine Corps responded that future Marine Corps readiness inspections will consider the questions of accuracy and validity of SORTS reports.

Naval Surface Reserve Force Personnel and Training Readiness, Audit Report No. 049-S-91, June 25, 1991. The Navy audit determined the following.

o Unestablished billets and personnel in an In-Assignment-Processing status were excluded from readiness computations. Consequently, the Surface Reserve Force significantly overstated its ability to support fleet mobilization requirements.

o The Surface Reserve Force did not include specific training elements related to mobilization billet requirements in Reserve Billet Training Plans. Additionally, the readiness ratings assigned to individual Reservists were not fully supported when compared with actual training accomplished, which is contrary to Navy directives.

The audit recommended that the Commander, Naval Reserve Force, during periodic inspections of Naval Surface Reserve Centers, review individual readiness ratings established to ensure ratings are representative of billet mobilization requirements and are fully justified based on documented evidence of completed training.

Department of the Air Force

Functional Management Inspection of Aircrew Training in Support of Theater War Plans, PN 88-634, May 11, 1993. The inspection was divided into five topical areas: plans, Designed Operational Capability statements, aircrew training, SORTS reporting, and oversight. Designed Operational Capability statements were evaluated on how accurately they reflected war

planning taskings and provided a standard for readiness reporting. The inspection evaluated the SORTS reporting process for overall effectiveness in relating unit readiness to undertaking wartime taskings.

The report references three previous Air Force Inspector General reports that identified unit training programs that did not train units to accomplish their wartime missions. The report states that "the administrative systems to identify unit training shortfalls did not reflect these deficiencies." There were numerous differences between the reported status and the actual status of units observed during the Functional Management Inspections.

The report focused on the following areas.

o Designed Operational Capability statements did not accurately reflect unit war plan taskings. Further, the use of special capability designations tended to mask training status instead of identifying shortfalls.

o Headquarters, Air Force, and major command aircrew training guidance allowed units to report aircrews as able to perform unit wartime missions before units were fully trained.

o Guidance for Air Force SORTS reporting did not ensure accurate C-status was reported. The guidance allowed units to designate wartime missions as special capabilities which often masked training and resource shortfalls. Aircrews reported as mission ready through SORTS were not always available or fully trained to undertake the unit wartime mission. Inaccurate Designed Operational Capability statements, incomplete training standards, and imprecise reporting procedures resulted in an inaccurate reflection of aircrew availability and training status. Major command training programs concerning SORTS management did not ensure that accurate reports were submitted.

o A general misconception of the purpose and function of the SORTS report was evident throughout the Air Force. This misconception was evident at all levels of leadership, including executive levels.

o Major command inspection processes did not identify units that were not training to accomplish their wartime missions. Additionally, those processes did not identify units that were inaccurately reporting their ability to accomplish their wartime tasking.

o Non-flying units appeared to experience several of the same SORTS and Designed Operational Capability statement problems as flying units, the subject of the inspection. The same misconceptions about the use and purpose of the Designed Operational Capability statement and the SORTS report persisted. The report recommends that the Air Force conduct a review covering those specific areas in non-flying units.

The report also recommended the following.

o The Air Force should rewrite the regulation governing Air Force SORTS reporting to clarify the scope, purpose, meaning, and use of the SORTS

report; establish a more accurate method of measuring the status of resources and training against the full wartime mission of a unit; establish, with the major commands, SORTS management training programs for staff personnel, wing and squadron leadership, and functional area managers; and develop common-core criteria to validate Designed Operational Capability statements, SORTS reporting, and training management.

o Major commands should develop checklists and procedures to ensure validation of unit training and reporting and to reemphasize commander responsibilities for accurately reflecting shortfalls through the SORTS. Also, the Headquarters, Air Force Inspection and Safety Center, should develop criteria and checklists to provide adequate oversight of major command Designed Operational Capability statements, SORTS, and training management.

Other Reports

RAND Report R-3842-DAG, "Measuring Military Readiness and Sustainability," 1991. This year-long study responded to a Defense Advisory Group request to review the state of the art in readiness and sustainability measurement and to develop a "strategic concept design" for improved measurements that would better serve high-level DoD decision makers. The report is highly critical of existing measures of readiness and sustainability in providing adequate information to high-level decision makers concerning the U.S. military posture. The study report defines these measures in terms of the SORTS and the sustainability ratings from the biennial Preparedness Assessment Reports prepared by the commanders in chief.

RAND describes the SORTS as "especially useful" at the lower decisionmaking levels--the Service commands, the theater commands, and up to the Service headquarters where management actions can be taken against specific identified problems. RAND states that those levels also use the SORTS for making decisions about which units to deploy and employ for "no plan" contingencies.

For decision makers above the Services level, RAND indicated that unit asset data as summarized in SORTS are "not very helpful." High-level decision makers need information about the consequences related to such data. RAND strongly recommended the three actions below to enhance the utility of unit asset data for high-level decision makers.

o Incorporate the "time dimension" in reporting all types of units (augmenting unit estimates of the length of time to attain training and performance objectives with corresponding estimates of the time it would take units to deploy).

o Units should report the quantities of available key equipment (the SORTS should ignore course thresholds that separate category levels).

o Account for the availability of equipment, supplies, and personnel from other sources (for example, other units, central stockpiles, or reserves).

RAND suggested that carefully conceived functional tests should augment such extended asset reporting as recommended above. That testing would verify or ensure the accuracy of time estimates.

Appendix C. Additional Background Information

SORTS Evolution

National Military Command System Requirements. The SORTS, in its present form, has evolved over several decades from previous systems designed to provide national leaders with readiness information on U.S. Armed Forces. The authority for those systems, DoD Directive S-5100.44, "Master Plan for the National Military Command System (U)," June 9, 1964, directed that the NMCC have access to all information required for normal operations as well as for analysis of any emergency situation confronting the National Command Authorities.

Joint Chiefs of Staff Combat Readiness Reporting System. On September 27, 1966, the Office of the Joint Chiefs of Staff created the Joint Chiefs of Staff Combat Readiness Reporting System, requiring each of the Services to design a system for combat readiness measurement. A comprehensive system resulted called the Readiness Operations Report. The system set the precedence for several key principles governing future readiness reporting:

o clarity and specificity to minimize differences in interpretation by the commands;

o simplicity in criteria to avoid excessive time spent in determining ratings and their successive review;

o commonality in Service definitions, where possible, to provide a single definition;

o quantitative measurements using quantitative criteria to the maximum extent possible; and

o timeliness in readiness information to be of value to the conduct of military operations.

Force Status and Identity Report. In March 1968, the Joint Chiefs of Staff Combat Readiness Reporting System was replaced by the Force Status and Identity Report. On April 20, 1971, the Office of the Joint Chiefs of Staff revised the Force Status and Identity Report system to more fully support the information requirements of the users. The Force Status and Identity Report established reporting requirements and criteria for measuring unit readiness status and resource areas. Those resource areas were personnel, equipment and supplies on hand, equipment readiness, and training.

Unit Status and Identity Report. In April 1980, the Office of the Joint Chiefs of Staff initiated the Unit Status and Identity Report to replace the Force Status and Identity Report. The basic modifications to the reporting system involved:

o computing combat ratings based on wartime resource requirements as opposed to peacetime authorizations,

o standardizing quantitative criteria for measured resource areas, and

o establishing a fifth combat rating category to reflect a not-combat-ready condition due to Service programmed action.

Status of Resources and Training System. In August 1986, the Office of the Joint Chiefs of Staff changed the name of Unit Identity and Status Report to SORTS to emphasize that the report was a measure of available resources and not a reflection of the combat capability of a given unit. At the same time, the Office of the Joint Chiefs of Staff changed the meaning of the prefix "C" as in C-1 changed from "combat" to "category," the word "level" replaced "rating," and "category level" replaced "combat rating."

Current System

Joint Publication 6-0. Joint Publication 6-0 states that "the fundamental objective of a command, control, communications, and computer system is to get critical and relevant information to the right place in time to allow forces to seize the opportunity and meet the objectives of the operational continuum." Joint Publication 6-0 emphasizes that principles, such as economy of employment, interoperability, commonality, information priority, timeliness, and standardization, should guide the fielding and maintenance of command, control, communications, and computer systems. Joint Publication 6-0 states that those "essential qualitative elements" will enable command, control, communications, and computer systems to function effectively.

CJCS MOP 11. CJCS MOP 11 describes the SORTS as "the single, automated reporting system within the DoD that functions as the central registry of all operational units of the U.S. Armed Forces and certain foreign organizations." CJCS MOP 11 requires that the SORTS provide broad bands of information on selected unit status indicators to include a commander assessment on unit ability to execute its full wartime mission(s) or portion of the mission for which the unit has been alerted or committed. The CJCS MOP 11 specifies that the SORTS is designed to support, in priority order, crisis response planning; deliberate or peacetime planning; and management responsibilities to organize, train, and equip forces for use by the commanders in chief.

Management Responsibilities. CJCS MOP 11 outlines management responsibilities for the system.

Joint Staff. The Joint Staff is charged with overall SORTS management. Joint Staff responsibilities include establishing policy, providing guidance and direction, establishing procedures for reporting, implementing applicable management functions, monitoring the effectiveness of SORTS data reporting, and chairing the SORTS Configuration Review Board.

Defense Information Systems Agency. The DISA is tasked to provide technical support to the Joint Staff and the Worldwide Military Command and Control System (WWMCCS) community in the design, maintenance, test and development, and deployment of the SORTS and SORTS-related application software. Major responsibilities include coordinating with the Joint Staff on the registration of units and monitoring SORTS reporting for accuracy and timeliness.

The Services. The Chiefs of the Services have responsibilities that include registering Active and Reserve component units required to report in the SORTS; providing guidance and supplemental procedures applicable to their respective Service; monitoring SORTS data reporting for accuracy, timeliness, and validity; and serving on the Configuration Review Board.

Service Major Commands. Service major commands are specifically tasked for ensuring SORTS reports are submitted; monitoring report accuracy, timeliness, and validity; developing supplemental procedures; identifying personnel and equipment necessary for uninterrupted reporting during peacetime, crisis, or wartime; and integrating the SORTS into all applicable exercises.

Combatant Commands. The combatant commands are charged with registration requirements for organizations established by the respective commands; developing supplemental instructions as needed for subordinate forces; monitoring the accuracy, timeliness, and validity of SORTS data within the commands' respective assigned responsibilities; integrating SORTS reporting into all applicable exercises; and serving as nonvoting members of the Configuration Review Board. The U.S. Special Operations Command serves as a voting member at applicable Board meetings.

Service Guidelines. CJCS MOP 11 allows the Services and the U.S. Special Operations Command, in coordination with the Joint Staff, to add Service-unique data to unit SORTS submissions. However, CJCS MOP 11 cautions that the additional data "must not interfere with the accurate and timely receipt of reports required."

Joint Publication 1-03.3. Joint Publication 1-03.3 contains the general provisions and detailed instructions for collecting and preparing data on units of the U.S. Armed Forces and selected foreign and international organizations. Joint Publication 1-03.3 highlights the SORTS concept of operations, giving examples of how the Services send information through the system from units to the NMCC. The Publication also expands the definition of the designed applications of SORTS data for Joint and Service purposes.

Designed Applications. Joint Publication 1-03.3 states that the SORTS will give users the ability to:

o prepare lists of units readily available;

o estimate the time for earliest commitment of units based on their location relative to the situation;

o assist in the identification of or confirm major constraints on the employment of units;

o track location, activity, major equipment status, and personnel strength of assigned units in order to determine forces readily available; and

o provide selected, necessary unit data used by other automated systems (for example, the JOPES) to support situation and execution monitoring.

Services Uses. Joint Publication 1-03.3 also specifies that the Services and the U.S. Special Operations Command can use the SORTS to:

o focus high-level management attention on problems resistant to normal solutions,

o confirm shortfalls and distribution problems with unit resources,

o confirm units best able to support reallocation or redistribution actions, and

o monitor corrections to shortfalls and problems.

Unit Registration and Regularly Reporting Units. As of June 29, 1995, the SORTS had more than 56,000 registered units. Of those registered units, 9,598 routinely submitted SORTS reports. The following table provides the number of registered and reporting units.

Registered and Reporting Units in the SORTS

Component	Registered Units	Reporting Units
Office of the President	2	0
Central Intelligence Agency	2	0
Joint organizations	1,174	0
Army	35,678	5,158
Navy	8,237	1,393
Air Force	10,197	2,458
Marine Corps	409	380
Coast Guard	308	206
Foreign organizations	284	3
Totals	**56,291**	**9,598**

(Source: DISA Resource Monitoring Branch)

System Configuration

Worldwide Military Command and Control System. Today, SORTS data are provided to the NMCC SORTS data base as a U.S. Message Text Format (USMTF) message by either of two methods: Automatic Digital Network message or the WWMCCS Intercomputer Network file transfer system. The Automatic Digital Network passes message traffic and interfaces with the WWMCCS. The WWMCCS Intercomputer Network provides secure communications to transmit command and control information to WWMCCS sites, including the NMCC. DoD Components complained that the WWMCCS is antiquated and obsolete, based on its 1960s mainframe (Honeywell) automated data processing technology. In response to that concern, the Joint Staff and the Services attempted to upgrade the capability of SORTS reporting under the WWMCCS.

SORTS Modernization. In 1988 the Defense Communications Agency, the predecessor to DISA, began planning the technical modernization of the SORTS. In its technical report detailing SORTS modernization specifications, the Defense Communications Agency highlighted problems with the SORTS in maintaining accurate and timely database information. Additionally, system effectiveness suffered from inefficient, cumbersome, and obsolete data entry procedures. The Defense Communications Agency concluded that the consequence of those deficiencies was a decrease in the reliability of the SORTS, which lessened confidence in the system and decreased user productivity.

Modernization Plan. In June 1990, the Defense Communications Agency issued a plan documenting a multiphased, 2-year approach for implementing SORTS modernization. The Defense Communications Agency identified system requirements, which it validated during site surveys performed

from July through November 1989. The goal of the modernization was complete reengineering of the SORTS to overcome deficiencies and improve data reporting, data processing, database structure, data retrieval, and data display.

Improvements in Capability. The modernization plan was to implement comprehensive technical changes to the SORTS. Among the many requirements the plan included were the transition of the SORTS to USMTF as a message standard, improvement of data reporting software to generate error-free reports, enhancement of data retrieval to include automatic extraction of SORTS data from other key reports (such as commanders' Situation Reports), and development of more effective quality assurance tools. The Defense Communications Agency anticipated that modernization would transform the SORTS from the 1960's WWMCCS mainframe technology to a client/server architecture, significantly improving the SORTS capability as both a day-to-day and crisis operations management tool.

Modernization Plan Not Executed. The modernization plan was never executed as designed. Instead, the Services began to work independently to develop and implement software changes to improve their respective SORTS reporting systems. The only Joint requirement for modernization was that the Service systems be capable of reporting SORTS data to the NMCC and the joint community in the USMTF protocol. That requirement involved an upgrade to SORTS software from the Version 5.0 series, applicable for the Joint Reporting Structure, to Version 6.0, which was necessary for USMTF reporting.

Army Implementation. The transition to meet the USMTF requirement began in October 1993, with the Army use of the Personal Computer Army SORTS. That system allows many Army units to enter Unit Status Reports directly into personal computer terminals for ease in preparing and forwarding reports to higher command echelons. The complete modernization of Army SORTS remains ongoing, however, because of technical problems the Army encountered with its processing mechanism.

Navy Implementation. The Navy completed its transition from the Navy WWMCCS Standardization System to the Operational Support System in January 1995. The Navy compiles unit SORTS reports into an Operational Support System data base at the fleet level before forwarding the reports to the NMCC.

Air Force Implementation. The Air Force implementation of USMTF reporting was to have begun in October 1993; however, the effort has been plagued with problems in developing an effective input mechanism at the unit level. The Service, led by an Air Combat Command software development effort, finally implemented full USMTF reporting in April 1995. The Air Staff is working with the DISA to improve on the Air Combat Command software design.

Marine Corps Implementation. As of June 1995, the Marine Corps had not implemented SORTS reporting in USMTF. Because the Marine Corps has not created its own variant of the SORTS (as have the Army and the Navy),

the Marine Corps is relying on the Joint Staff and the DISA to develop an effective input and reporting mechanism for its use. The DISA is considering adapting an upgraded version of Air Force software for Marine Corps use.

Global Command and Control System. The advent of the GCCS paralleled the SORTS modernization effort. The GCCS is being installed at 64 command and control locations worldwide to serve as a replacement to the WWMCCS.

o The GCCS uses a state-of-the-art operating system (UNIX) and relational data base (Oracle) technology. The SORTS application in GCCS, called GSORTS, has been designed to provide easy access of SORTS information to the decision maker using a network of minicomputers at each major command and operating location. The GSORTS adds a graphical display and other interfaces to the SORTS relational data base.

o Because a portion of the SORTS modernization had been accomplished (for example, USMTF reporting) and was compatible with GCCS requirements, the GCCS program office used the GSORTS for its proof-of-concept demonstration in late 1993. The Joint Staff and DISA subsequently planned for a WWMCCS shutdown on September 30, 1995, with planned GCCS implementation occurring on October 1, 1995. In May 1995, the Joint Staff slipped the GCCS implementation schedule until December 1, 1995.

Appendix D. Summary of Joint User Interviews and Examples of Deficiencies

This appendix summarizes the views of Joint users we interviewed during the evaluation concerning the effectiveness of the SORTS in meeting their needs. The appendix shows examples of accuracy, timeliness, and relevancy problems discussed at each location we visited. For the purposes of this appendix, we use the following acronyms for the respective commands.

USACOM	U.S. Atlantic Command
USCENTCOM	U.S. Central Command
USEUCOM	U.S. European Command
USPACOM	U.S. Pacific Command
USSOCOM	U.S. Special Operations Command
USSTRATCOM	U.S. Strategic Command

U.S. Atlantic Command and U.S. Special Operations Command. Staff representatives at Headquarters, USACOM and USSOCOM, explained that the SORTS was difficult to use as a crisis action and deliberate planning tool. Staffs were dissatisfied with the lack of timeliness in reporting, indicating that SORTS information obtained through the NMCC is outdated, and thus unreliable. Both staffs stated that the lack of effective data quality controls was the predominant management shortfall of the SORTS, resulting in the poor quality of NMCC SORTS data. Representatives at both commands believed that if corrected, the SORTS would be a more effective and useful decisionmaking tool for the commanders in chief.

o The staffs at both commands demonstrated inaccuracy problems with on-line SORTS data from the NMCC SORTS and JOPES data bases. For example, the USSOCOM staff retrieved SORTS data on Special Operations units in both the NMCC SORTS and JOPES data bases, which showed reporting "as of" dates more than 2 weeks apart. Also, the USSOCOM staff provided numerous examples of Air Force Special Operations Command squadrons reporting "as of" dates that were more than 30 days old. Additionally, many registered Navy unit identification codes had no status information reported. Other units that did report possessed "as of" dates dating to June 1993. The accuracy and reliability of such data is suspect. In summarizing the ineffectiveness of SORTS support to the JOPES, the USSOCOM JOPES manager estimated that up to one-half of the SORTS data in the JOPES was outdated and incorrect. The representative stated that those problems degraded deployment planning and assessment of Operations Plan execution. The USACOM JOPES manager had similar views and added that SORTS data were outdated and unreliable for immediate decisionmaking.

o The USACOM staff emphasized that lapses in reporting unit location and status and the failure to report fragmented units hindered their ability to assess the status and availability of units tasked in Operations Plans. The staff specifically cited the absence of Army SORTS reporting during operations in Haiti and the absence of Air Force fragmented unit SORTS reporting as

examples. The USACOM staff indicated that the command could not accurately assess the effectiveness of operations without using Situation Reports or contacting the units through the component command.

o An official at USACOM demonstrated SORTS data inaccuracy by displaying two separate locations for the U.S.S. *Mount Whitney* using GSORTS; that type of inaccuracy, the official stated, was unacceptable for decisionmaking.

o In preparation for a briefing, the USACOM staff compared SORTS information from the NMCC data base to information on force deployment received from their component commands. The data did not match. Again, the staff cited fragmented unit reporting as particularly problematic. Army units known to be partially deployed were not reflected as such in SORTS.

o The USACOM staff stated that the failure of the Services to delete deactivated units in SORTS impedes the ability of the command to assess execution of Operation Plans. The staff had a list of units that had been identified to support an Operations Plan, indicating that many units have not reported in SORTS since 1988. The staff suspected that many listed units were deactivated.

o A USACOM staff member stated that senior leaders typically request "general information" and expect it to be accurate. Problems experienced over time, however, have degraded staff confidence in SORTS to provide accurate information when needed. Therefore, the staff is compelled to verify information in their data base before briefing the information to senior command leaders. For example, before a briefing for the commander in chief, the staff placed a call to the Navy component command. The staff learned that a ship was located near Haiti, but SORTS did not show that information. The staff explained that verifying SORTS data in preparation for high-level briefings often takes days.

U.S. European Command. The primary representative we interviewed at Headquarters, USEUCOM, described the SORTS as "broken," stating "no one uses the [SORTS] data because it is inaccurate," and that there has been "no initiative in EUCOM to improve data, because no one uses it." The USEUCOM staff cited the following specific deficiencies:

o difficulty in using Army SORTS data that are up to 45 days old,

o aged data residing in the NMCC SORTS data base,

o deficiencies in the registration and reporting of fragmented units,

o removal of deactivated units (one Army Division continued to be reflected in the SORTS more than a year following deactivation),

o SORTS and JOPES interface problems and meaningless SORTS data codes in the JOPES Unit Identification Files,

o nonstandardization of terms, and

o difficulties in interpreting resource levels among the Services.

U.S. Pacific Command. Headquarters, USPACOM, staff representatives explained that the command's use of the SORTS was "greatly reduced" because of inaccuracy, lack of timeliness, and relevancy problems with the data. One staff representative explained that in a time-constrained environment, it is necessary for the decision maker to be able to rapidly assess which forces are readily available to respond to a crisis. He further noted that the decision maker needs to have the ability to understand unit readiness to complete the mission. To that end, the information must be timely, accurate, consistent, and in an understandable format, which the SORTS frequently does not provide.

The staff also noted specific deficiencies with the SORTS and examples:

o lack of synchronization between the Joint and Service SORTS data bases, which exacerbates accuracy problems;

o inaccurate unit location and status reporting (SORTS showed erroneous data on a ship location, and Marine Corps unit reports had "remarks" contradictory to reported status);

o excessive subjectivity in SORTS reporting (one Navy frigate was reported as an overall C-1, but was discovered to be C-3 when called upon to perform a mission); and

o other relevancy problems, such as inconsistencies and lack of standardization in Service reporting and difficulties in interpreting SORTS data.

U.S. Central Command. Headquarters, USCENTCOM, representatives stated that the command had no need for the SORTS and did not use it as a crisis action, deliberate planning, or current operations tool. The Command obtains unit resource information it needs from Situation Reports, not the SORTS. However, the staff acknowledged problems with the accuracy, timeliness, and relevancy of SORTS information. Specifically, staff representatives cited erroneous SORTS information that resided in the JOPES data base, and they gave us an example of inaccurate unit location reporting that occurred on one of their first attempts to use GSORTS during Operation Vigilant Warrior (data inaccuracies affected staff confidence in using GSORTS thereafter). However, representatives expressed increasing interest in using GSORTS if and when functional and technical problems could be resolved.

U.S. Strategic Command. Although we did not visit Headquarters, USSTRATCOM, we received a memorandum on November 1, 1994, from the commander in chief concerning the ineffectiveness of the SORTS. Specifically, the memorandum states SORTS "reporting requirements are not adequate to support . . . employment information needs." The commander in chief indicated that SORTS reporting was neither accurate nor timely for effective decisionmaking during a crisis scenario when time for deciding force employment options is limited. The commander in chief urged that more real-

time data be made available. Additionally, the memorandum cited the problem of broad C-level measurements that can be misleading indicators of critical resource availability. The memorandum specifically referenced the need for reporting accurate aircraft availability and disapproved the SORTS equating 75-percent aircraft availability to a "C-1" resource level. The commander in chief recommended "a review of 'C' level criteria in light of changes in our resource levels," and urged greater involvement of the commanders in chief in determining reporting requirements.

Office of the Deputy Under Secretary of Defense (Readiness). Officials in the Office of the Deputy Under Secretary of Defense (Readiness) stated that SORTS "reporting errors, lack of timeliness, and lack of uniformity among the Services . . . limit SORTS usefulness to senior OSD [Office of the Secretary of Defense] and Joint leaders." The officials expressed concern that the ineffectiveness of the SORTS in supporting senior DoD decision makers has become more problematic given that "readiness" is the top priority of the DoD. The staff highly recommended a "major system overhaul," emphasizing that the SORTS must be more balanced and standardized for Office of the Secretary of Defense and Joint users. The officials emphasized that to be effective, the SORTS must:

o be simple and understandable for senior decision makers who are not experts in Service systems;

o reflect accurate, timely, and uniform information (to meet Office of the Secretary of Defense needs for trend analysis and immediate problem assessment);

o be structured to work in peacetime, contingency, and war;

o conform to Office of the Secretary of Defense and Joint user requirements, not just Service needs; and

o be technically designed so that other functional reporting systems can easily feed into the SORTS.

NMCC Staff. The NMCC Automated Data Processing Liaison Officer indicated that NMCC staff use of SORTS information was limited because of inaccuracies resulting from erroneous unit location data and the lack of unit change reporting. Those problems, the officer indicated, significantly affected the NMCC staff confidence in SORTS data. The officer presented the following examples of problems with the SORTS.

o "About every other" embarked Marine Expeditionary Unit was not reporting in the SORTS. Queries through the DISA showed that Marine Expeditionary Units embarked on ships mistakenly believed that the ships' staff had reported for them.

o The lack of change reporting in the Army affected the ability of the NMCC staff to track accurate unit location. For example, four units formerly deployed to Somalia, and since departed, were still reflected in the NMCC data

base as located in Somalia. Despite initial notification of the error to the Joint Staff in July 1994, data base reviews in October 1994, February 1995, and April 1995, continued to show the location of those units in Somalia.

o Difficulties in retrieving unit information in SORTS were caused by a lack of standardization and ambiguous abbreviations. For example, the NMCC received lists of units involved in operations in Haiti arranged by name, not by unit identification code. A search for needed status and location information was severely hampered by repeated attempts to "guess" at the abbreviation used by each unit in the SORTS. The quantity of units multiplied the time and frustration involved.

Joint Staff. Joint Staff officers we interviewed acknowledged deficiencies with the accuracy, timeliness, and relevancy of the SORTS, which precluded its effective use.

o An officer assigned to the Medical Readiness Division explained that medical units typically do not understand SORTS reporting. The officer cited problems with the units' use of erroneous "reason codes" in describing unit status that contradicted actual status; and hospital ship SORTS reports that accounted for "crew" status only, and not the medical unit aboard. The officer continued to explain that other problems with SORTS, including the Services' differing methods of measuring SORTS categories, cause "confusion" for the Joint user and preclude effective assessment of Operations Plans. Specific examples the officer cited were: incomplete Joint Publication 1-03.3 guidance for the definition of "reason codes"; inconsistent reporting requirements for Navy Fleet and Navy Reserve Fleet hospitals; the lack of visibility in SORTS of the status of Air Force Air Transportable Hospitals, whose statuses are "hidden" in hospital groups; and the Army practice of projecting personnel for gain during mobilization, rather than reporting the actual status of personnel when developing unit reports. In relation to that Army practice, the officer displayed an Army medical unit "missing" more than 50 percent of its authorized personnel, but reporting C-2 for personnel currently assigned and those projected for gain.

o The Joint Staff officer responsible for establishing SORTS policy explained that the failure to comply with SORTS reporting requirements specified in Joint directives resulted in the inaccurate statuses of Army units during operations in Haiti. When the deployment was initiated, the Army unilaterally excused units from SORTS reporting without coordination and approval of the Joint Staff or the USACOM commander in chief. Consequently, units were displayed in the NMCC SORTS data base with inaccurate status and location information.

DISA Resource Monitoring Branch. The DISA Resource Monitoring Branch staff acknowledged that the NMCC SORTS data base had been plagued by data inaccuracies and problems in timeliness. The staff cited the following reasons for those problems.

o System design fostered problems in synchronization and data compatibility among the NMCC and Service SORTS data bases.

o Joint Staff system administrators have not adequately defined and enforced monitoring responsibilities and have allowed for Service noncompliance with reporting requirements.

o Significant reductions in the Resource Monitoring Branch budget have severely limited staff ability to develop and implement comprehensive monitoring mechanisms for maintaining the quality of the NMCC SORTS data base.

The DISA staff told us that on April 1, 1995, before our interview, the DISA and the Army, Navy, and Air Force had performed a one-time synchronization to purge outdated information from the NMCC SORTS data base and reconciled SORTS data with that of the Services. The synchronization effort fixed the data, but not problems with the SORTS. DISA staff stated that differences in NMCC and Service automated edit checks would result in the NMCC SORTS data base becoming more corrupt with time.

The DISA staff reported data base inaccuracies encountered from past manual tests of the SORTS. Specific inaccuracies included the following.

o A Navy ship was reflected in SORTS as not yet operational out of a shipyard, yet television and newspapers showed the ship as a command ship off the coast of Somalia during recent operations.

o Army units known to be in Southwest Asia during Operation Desert Shield were reported at home station in SORTS.

A common problem related by the DISA staff was outdated "remarks" in the data base. The staff explained that units submit reports containing commander remarks to expand on or explain reported levels, but units fail to delete remarks from previous reports. Thus, outdated information remains in the data base. We requested a query of the NMCC data base to demonstrate this problem.

o DISA conducted the query on May 24, 1995, asking for remarks dated before January 1, 1995. Table D-1 shows the results. The Army's remarks are more current because of its policy of complete reporting and total replacement of previous reports with new ones (see Appendix E) and because of the recent data base synchronization in which the NMCC data base was updated with the Army data base.

Table D-1. Number and Dates of Remarks in SORTS

Organization	Total Remarks	Remarks Dated Before Jan. 1, 1995	Date of Oldest Remark
Army	22,666	0	May 2, 1995
Navy	10,253	1,707	May 18, 1984
Marine Corps	3,789	1,254	Sept. 26, 1991
Coast Guard	1,026	211	Apr. 13, 1989
Air Force	16,888	2,030	Dec. 19, 1983
Joint[1]	23	23	Dec. 23, 1976
Int'l[2]	2	2	Aug. 8, 1972

[1]Unit Identification Codes registered by the Joint Staff or unified commands.
[2]International units.

We did not review the actual remarks for subject content and cannot prove that any remark is no longer valid or applicable to a unit. However, we believe that information more than 5 months old in the data base is suspect, especially remarks dated 1972 and 1976.

o DISA performed another query (see Table D-2) on the same date to determine the age of reports in the data base for units reporting overall status. The query included a count of unit reports by organization in which the reporting date was also before January 1, 1995 (about 5 months earlier). The results provide indications of deactivated units remaining in the NMCC data base, unit failure to report or validate current status, or of exemptions from reporting. Results of the query are depicted below. From the statistics, the timeliness and accuracy of SORTS information in the NMCC data base for many units is questionable.

Table D-2. Age of Reports in NMCC SORTS Data Base

Organization	Total Reports	Reports Dated Before Jan. 1, 1995	Date of Oldest Report
Army	5,172	144	May 15, 1988
Navy	1,386	340	Feb. 3, 1992
Marine Corps	379	41	Mar. 3, 1994
Coast Guard	392	249	Sept. 13, 1994
Air Force	2,516	96	Jan. 22, 1990
Joint[1]	12	12	Jan. 4, 1977
Int'l[2]	3	3	May 7,1984

[1]Unit Identification Codes registered by the Joint Staff or unified commands.
[2]International units.

Appendix E. Summary of Issues Identified by the Services

This appendix summarizes specific SORTS issues and deficiencies encountered by the Services. The issues and deficiencies have a negative effect on the timeliness, accuracy, and relevancy of information reported to high-level Service and Joint users.

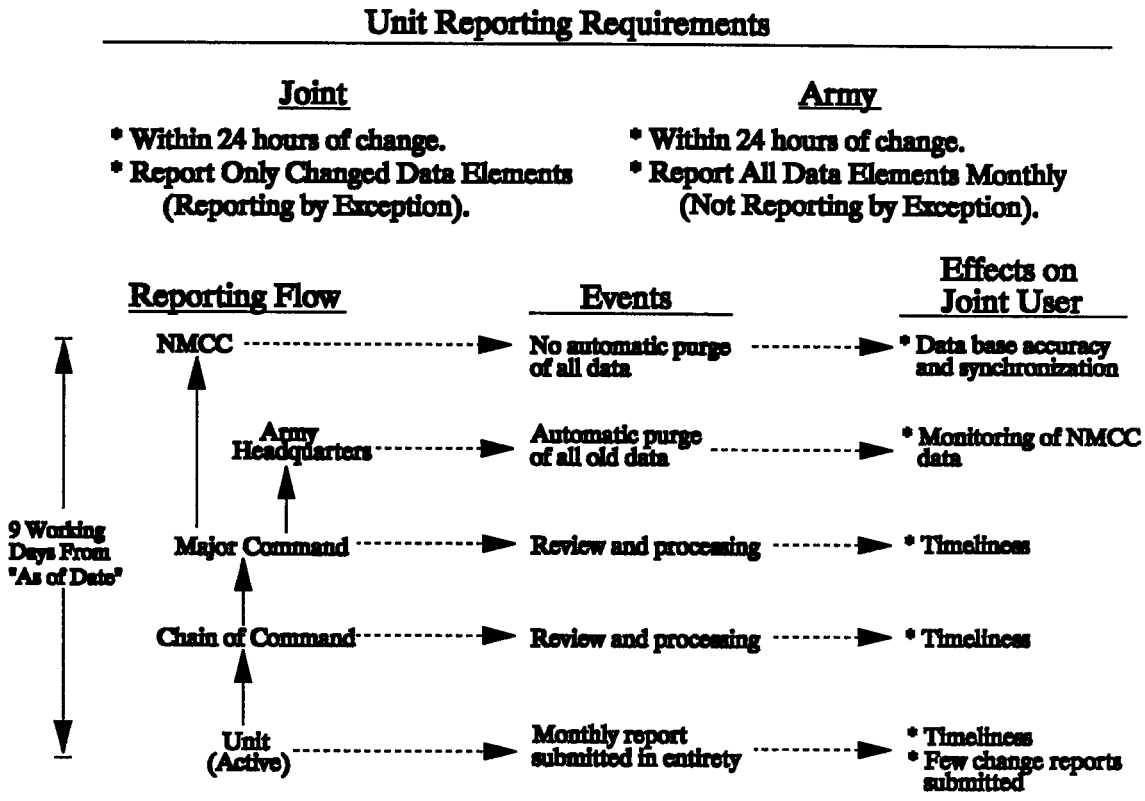
Department of the Army

Timeliness of Army Reporting and Data Synchronization Problems. As illustrated in the figure on the opposite page, Army procedures slow reporting of SORTS information from the unit to the NMCC SORTS data base and contribute to data synchronization problems. Slow Army procedures and the lack of effective Army or Joint Staff monitoring of the NMCC SORTS data base result in information reported to the NMCC that was not current and over the long term, became erroneous in the NMCC.

Complete Unit Status Reporting. Army Regulation 220-1, "Unit Status Reporting," July 31, 1993, requires that units submit complete Unit Status Reports instead of "by exception" reports. That requirement adds substantially to the time necessary for units to submit and compile reports. Our review of Army processing procedures and interviews with unit personnel showed that the actual age of data reaching the NMCC can be as high as 41 days. Examples are provided below.

o The senior staff in an Army National Guard unit stated that to prepare a complete report as of the 15th of the month as required by Army Regulation 220-1, a unit must begin to compile data on the 25th day of the previous month, more than 20 days before the "as of" date of the report. The review process through the chain of command can add as many as 21 days to the unit compilation time, thereby causing the Unit Status Report data to be up to 41 days old when it reaches the NMCC SORTS data base.

o An Active component unit stated that it took at least 5 days to compile its Unit Status Report before the 15th of the month. That 5 days and the 9 working days allowed for processing the Unit Status Report through the Army chain of command result in the potential for the NMCC to receive unit data that are 16 to 18 days old (including weekends). If no change reports are submitted, the information in the NMCC data base ages by 30 more days before receipt of the next report. Therefore, we determined that data can be more than 70 days old for some Army National Guard units and up to 48 days old for Active units. Representatives from four of the five unified commands visited and the NMCC specifically attributed Army monthly unit status reporting and infrequent change reports as causes for a lack of confidence in the accuracy and relevance of Army information in respective SORTS data bases.



Army SORTS Reporting and Effects on Joint Users of the SORTS

Potential for Measurements Based on Projected Status. Because of Army procedures and required report completion dates, the potential exists for Army units to project unit status for the "as of" date of the Unit Status Report, rather than reflect actual status on that date. In 1989, the Army Inspector General specifically identified in the Special Inspection Report of Readiness Reporting Systems the potential for inaccurate reporting based on projecting unit status (see Appendix B). Two of the three Army units we visited reported their "as of" status rather than their actual status.

Data Base Synchronization. Data base synchronization problems occur because of the technical design differences between the Army and NMCC SORTS data bases. As illustrated in the preceding figure, when the Army receives a Unit Status Report, the data base is completely purged of all previously reported data for that unit. However, the NMCC data base does not automatically purge all previously reported data. The NMCC accepts new data elements only on a one-for-one replacement basis with the old elements. Consequently, by design, unpurged data (in particular previous "remarks") remain in the NMCC SORTS data base. Because routine management control mechanisms are not in place to monitor the accuracy of Army data that populate

the NMCC data base, the NMCC SORTS data base gets corrupted with outdated information. Representatives at the Army, the Joint Staff, the DISA, and four unified commands acknowledged this major problem.

Change Reporting. Although Army Regulation 220-1 reiterates Joint Staff requirements, Army units do not complete change reports as required. Army units comprise more than 50 percent of the total number of units required to submit regular SORTS reports.

Accomplishing Change Reporting. Representatives at both Army major commands we visited stated that change reporting is infrequently accomplished. They ascribed complexity of reporting and chain-of-command processing as discouraging factors. Staff at the U.S. Army Forces Command described Army procedures as so intricate that units typically were not aware of status changes until performing monthly calculations, barring a catastrophic event. The staff at Headquarters, U.S. Army Europe, stated that even after the need to submit a change report is known, the process of reviewing unit reports up the chain of command precludes transmitting reports to the NMCC and Army data bases within the required 24 hours. For example, in one of the few instances of change reporting, it took 8 days for a change report to reach Headquarters, U.S. Army Europe. Headquarters, Army, officials similarly described the monthly reporting process as time consuming and tedious to the point that units are not aware of status changes until performing calculations for the next monthly cycle. Further, staff at the Command and Control Support Agency, which maintains the Headquarters, Army, data base, commented that it was unusual to receive change reports.

Unit Comments on Change Reports. Units provided additional evidence that change reports are not submitted as required. A unit commander described the Unit Status Report as a "once a month" report with status changes not reported until the following reporting cycle. In response to our unit commander survey (see Appendix F), the commander of an Active component unit stated, "Depending on the degree of difficulty, updates may be overlooked." An Army Reserve component unit commander commented that higher headquarters direction for submitting change reports is "to wait until the next reporting period."

Effects on the Joint User of the SORTS. According to the Joint Staff officer responsible for SORTS policy, as a result of the lack of Army change reporting, the Joint user has lost confidence in the accuracy and validity of Army data in the NMCC SORTS data base. We confirmed that view during visits to the NMCC staff and at several unified commands.

Relevancy and Standardization Issues. Army major commands were concerned about the relevancy and standardization of Army unit status reporting and of the potential for masking actual status.

Measuring Unit Personnel Status. Representatives at U.S. Army Forces Command were dissatisfied with Army procedures for personnel status reporting, indicating that personnel levels (P-levels) can mask significant deficiencies. Representatives explained that the Unit Status Report system does

not accurately reflect shortages in critical military occupational specialties. A Unit Status Report can show a C-1 for both personnel and training, yet the unit may be lacking critical personnel to do the mission. Further, an Active component unit commander stated that a significant unit deficiency in senior enlisted personnel can be masked by calculation procedures for computing total noncommissioned officer grades. In the 1989 Special Inspection of Readiness Reporting Systems (see Appendix B), the Army Inspector General was critical of the same problem in reporting personnel status.

Measuring Unit Training Status. Representatives at Headquarters, U.S. Army Europe, told us that the potential for masking also exists with procedures for reporting the training category level. For example, one official explained that in 1993, funding for tracked vehicle operation was reduced from 800 miles annually per vehicle, the Army training standard, to about 500 miles annually per vehicle. Nonetheless, a corresponding decrease did not occur in reported training category levels. Units continued to report T-1 for training even with the significant reduction in resources. The command was able to eventually correct the problem after emphasis was placed on "truth in reporting." The headquarters representative stated that the masking problem arose because of a void in written policy, the subjectivity of the training category, and the tendency commanders have to inflate Unit Status Reports. The representative concluded that it was entirely possible that two armored battalions in the same brigade with the same amount of training could report different training and overall category levels in their Unit Status Reports.

Masking Equipment Deficiencies. An Army National Guard Engineering battalion did not report transporter equipment for its bulldozers as a "pacing item" [a mission-critical item] as required by Army Regulation 220-1. The transporters were quite old and in constant need of repair. The staff representative described the situation as so significant that if the unit had been activated for Operations Desert Shield or Desert Storm, the unit would not have been able to deploy. Further, the representative indicated that if the unit identified transporter equipment as a pacing item, its overall category level would be C-4 instead of the higher reported category. The representative mentioned that higher command "verbally" instructed his unit to report the higher category level, but the representative could not produce a written authorization.

Wartime and Contingency Reporting. During Operation Uphold Democracy, the Army waived SORTS reporting for its deployed units without the required approval of the Joint Staff or the responsible commander in chief. Army SORTS managers attributed the necessity of waivers to the lack of equipment and capability for submitting reports. Managers indicated that Situation Reports were used instead of SORTS to send critical unit status information to decision makers. Army SORTS managers and representatives at Headquarters, U.S. Army Europe, believed that SORTS reports during contingencies and wartime were burdensome on units and "unrealistic."

Fragmented Unit Registration. Initial unit identification code registration for fragmented (or derivative) units presents a major problem for the Army and, subsequently, the Joint user of the SORTS. According to representatives at

Headquarters, U.S. Army Forces Command, derivative unit identification codes are not registered properly or reported in a timely manner. Consequently, planners, decision makers, and the follow-on logistics support system do not have complete information on deployed units.

Major Deficiency with Army SORTS. Officials at Headquarters, U.S. Army Forces Command, explained that the Army process for registering units, including fragmented units, which begins at Army Headquarters and filters through Army echelons, is too slow. By the time derivative unit registration occurs, the derivative unit has deployed and the unit is unaware it must submit a separate Unit Status Report. Consequently, the command cannot interact properly with the derivative unit. Thereafter, the task of attempting to track and report on the derivative unit is difficult. Representatives explained that the data that ultimately appear in the SORTS and the JOPES are erroneous, because the reflected locations and status are those of parent units, not their deployed subelements. Representatives also emphasized that the derivative reporting problem affects not only the SORTS and the JOPES, but also almost every functional area within the Army to include personnel and the logistics, medical, and budgeting functions. Representatives concluded that the lack of Unit Status Reports from derivative units was a major shortfall of Army SORTS.

Modified Tables of Organization and Equipment. The U.S. Army Forces Command staff also discussed a second problem with derivative unit registration. That problem involved reporting "cellular units," which are units consisting of teams that can deploy separately. According to the staff, the problem resulted from incorrect Modified Tables of Organization and Equipment that do not specify proper unit-type codes for some units. Without proper unit-type codes, derivative unit identification code registration cannot occur for a team deploying separately from a cellular unit. This deficiency precludes the identification and tracking of the structure of cellular units in the SORTS and JOPES data bases. The deficiency also affects how other Army functional systems can provide support to those cellular units.

Turnover and Training of Unit Identification Code Information Officers. At both Army major commands, the derivative unit registration problem was complicated by the lack of training and high turnover of Unit Identification Code Information Officers and by the absence of formal procedures. Those problems preclude effective unit registration and derivative unit reporting. As of June 1995, the Army was addressing part of the problem by issuing formal instructions in a draft Army regulation for Unit Identification Code Information Officers.

Army SORTS Training. Major command staffs, unit commanders, and Unit Status Report monitors perceive Army SORTS as deficient. The most significant problem involved training for Unit Identification Code Information Officers, but training in how to complete Unit Status Reports could also be improved. For example, the overwhelming majority of unit commanders responding to our survey told us that they and their unit monitors received only informal, on-the-job instruction on how to submit Unit Status Reports. Most commanders expressed a need for overview training for themselves to enhance understanding of the purpose and intent of the Unit Status Report and to

understand the essentials in developing a report. Commanders also recommended more comprehensive training for their Unit Status Report monitors.

Army SORTS Modernization. The U.S. Army Forces Command has experienced problems implementing software upgrades for Personal Computer Army SORTS.

Software Issuance and Installation. In our unit commander survey, 19 unit commanders voiced concern with the implementation of new Personal Computer Army SORTS software. Several commanders specified that software was distributed to their units without instructions or training on its use. Also, U.S. Army Forces Command representatives stated that Army headquarters had distributed new versions of the Personal Computer Army SORTS software without prior testing. Consequently, the Command experienced significant technical problems that were either difficult or impossible to overcome. For example, representatives told us that inexplicable lockups of the command's Unit Status Report data base had occurred and all data were lost. The technical problems frustrated the staff and indicated that neither the command nor its units had a fully functional software product. Command representatives viewed constant changes, incomplete guidance, and negligible quality control from Army headquarters as root causes for technical problems with Army SORTS software at the command level. One representative described technical management of Personal Computer Army SORTS as "outrageous."

Army SORTS Processing. Army headquarters and both Army major commands could not process Personal Computer Army SORTS data under the USMTF protocol, a major requirement for the transition to the GCCS. Representatives at both major commands advised us that until they had the capability, maintaining the WWMCCS was essential.

GCCS Installation. GCCS implementation within the Army is a major concern. Staff at Headquarters, U.S. Army Forces Command, expressed frustration with the GCCS implementation, including its GSORTS application. Specifically, the staff was concerned about the absence of a GCCS master plan that included system installation, demonstration, testing, training, and user documentation. The staff believed strongly that GCCS (and GSORTS) implementation was not meeting command requirements. Similarly, Army headquarters representatives expressed concern over the absence of adequate GCCS implementation planning and coordination. The staff stated that they learned that Personal Computer Army SORTS may not be compatible with GCCS communications requirements. Specifically, the Personal Computer Army SORTS output files in USMTF may not work for GCCS using the Automatic Digital Network, one of the two GCCS communications mediums. Personal Computer Army SORTS appeared to be compatible with the second GCCS communications medium, the File Transfer Protocol; however, that capability was not yet fully developed and operational.

Staff representatives cited the absence of clear guidance and documented GCCS requirements between the Joint Staff and the Army as contributing factors to the problem. The technical representative in the Readiness Division, Army

Headquarters, concluded that the problem could have been precluded if a thorough GCCS implementation plan or a GSORTS User Review Panel had been in place.

Finally, the Army's Command and Control Support Agency, which maintains and collects Army SORTS information for Army headquarters, expressed concern that the announced implementation schedule for GCCS conversion (at that time, October 1, 1995) may be too ambitious. That schedule did not give the Army sufficient time to install and conduct full testing of the GCCS before the announced shutdown of WWMCCS. The Army Command and Control Agency official also expressed concerns about uncertainty of GCCS query capabilities that were to differ from the current WWMCCS capability.

Monitoring and Data Quality Controls. Effective mechanisms for monitoring Unit Status Reports exist throughout the Army. U.S. Army Forces Command and U.S. Army Europe offices continuously monitored the receipt of Unit Status Reports, checking reports for accuracy through automated and manual methods and coordinating corrective actions to fix problems. Those commands had access to command Unit Status Report data in the Army headquarters data base and were able to routinely validate the accuracy of information. However, both commands lacked access to the NMCC SORTS data base and, therefore, could not validate its content.

NMCC SORTS Monitoring. Although the Readiness Division, Army Headquarters, conducts extensive monitoring activities, those actions focus mainly on the accuracy of Army data in Army systems. There are no effective mechanisms in place to ensure the accuracy of Army SORTS data residing in the NMCC SORTS data base. That deficiency exists even though the Readiness Division staff fully acknowledged that accuracy of Army data in the NMCC SORTS data base was a problem and that data base synchronization was lacking. The staff viewed monitoring of the NMCC SORTS data base as a Joint Staff responsibility. The staff believed that the only Army responsibility was to forward correct information to the NMCC SORTS data base. Readiness Division personnel indicated that the Army had offered the Joint Staff SORTS managers solutions, which included giving the Joint Staff the Army automated edits.

Army SORTS Inspections. Despite problems with Army SORTS that affect the accuracy, timeliness, and relevance of information reported up the chain of command, few inspections are performed that cover those problems. For example, representatives at both major commands informed us that neither command performed inspections that covered the Unit Identification Code Information Officer function, even though the command staffs acknowledged significant problems that have major implications for Army and Joint users of the SORTS. Also, when we asked unit commanders if unit inspections covered Unit Status Report procedures, 37 of 38 unit commanders said no.

Department of the Navy

Monitoring and Data Quality Controls. Navy SORTS managers perform only limited monitoring of SORTS data. Those efforts focus only on maintaining the quality of information in the Navy Status of Forces data base.[1] Navy SORTS managers had no routine mechanism for validating Navy data in the NMCC SORTS data base.

Navy Headquarters Monitoring. The staff at the Office of the Chief of Naval Operations performs automated checks of the Operational Support System software to identify missing sequence numbers and format errors of SORTS reports. SORTS managers do not perform accuracy, timeliness, or validity checks on the SORTS data. Representatives stated that they perform manual audits of Navy SORTS information only at the request of functional managers who perform SORTS analyses. Navy SORTS managers acknowledged that their monitoring of SORTS reports was deficient.

Fleet Monitoring Activities. Echelons of command at and below Fleet headquarters perform more extensive monitoring activities. The Atlantic Fleet and Pacific Fleet headquarters each reviewed and processed unit SORTS reports, performing automated checks and working closely with subordinate commands to identify and resolve SORTS reporting problems. Fleet SORTS managers informed us that subordinate commands (such as Navy type commanders and squadron commanders) are held responsible for the accuracy and validity of Navy SORTS reporting. Staffs at Fleet and subordinate commands manually review SORTS reports, compare them to known status information, and initiate corrective action as needed. For example, the Atlantic Fleet had a 60-percent error rate in unit submissions for the last 2 years. The Pacific Fleet experienced a 40-percent error rate in its unit SORTS submissions. In both instances, fleet and subordinate command monitoring activities identified and corrected problems before transmitting SORTS reports to the NMCC.

SORTS Quarterly Evaluations. Navy Warfare Publication 10-1-11, "Status of Resources and Training System (SORTS)," September 1987, requires that the fleets perform Navy SORTS Quarterly Evaluations with their respective units. The purpose of the evaluations is to validate the accuracy of SORTS data in the Navy Status of Forces data base. The evaluations also serve as a primary SORTS feedback mechanism from fleet headquarters to the units. Four Navy units and commands confirmed that the quarterly requirement was accomplished.

Operational Support System Translator Deficiencies. Neither fleet headquarters nor the Navy headquarters staff manually verified the accuracy of data in the Operational Support System to data in the NMCC. Representatives of two unified commands reported that the Navy had technical problems with its

[1]The Navy maintains all SORTS information in the Navy Status of Forces data base.

SORTS translator that corrupted information in the NMCC SORTS data base. SORTS managers at Navy Headquarters believed that the Operational Support System conversion process was providing accurate information to the NMCC data base. However, with no routine comparison mechanism in place, the Navy staff had no basis for that claim. In April 1995, Navy SORTS managers performed the first manual comparison of 25 unit reports to determine how well the Navy and the NMCC SORTS data matched. The managers indicated that the comparison identified problems between the two data bases primarily in the accuracy of unit locations. Representatives at the DISA Resource Monitoring Branch acknowledged Navy unit location reporting problems.

SORTS Validation Reporting. Navy Warfare Publication 10-1-11 does not require Navy units to submit validation reports every 30 days when changes do not occur to unit status or location. That omission conflicts with requirements in CJCS MOP 11 and Joint Publication 1-03.3. Navy SORTS managers told us that the high-frequency of reporting by Navy units preempts the need to submit validation reports. Navy staffs at several locations explained that high-frequency SORTS reporting results from the SORTS association with Casualty Reports[2] and from frequent unit location changes.

Deficiency in Land-Based Unit SORTS Reporting. The frequency of Navy unit SORTS reporting depends on how a unit is employed. For example, units that are either deployed or preparing to deploy report frequently and exceed the SORTS validation reporting requirement. Visits to two warships, as well as the results of our data base synchronization test (Appendix G), supported that conclusion. One warship we visited sent 96 SORTS messages in 8 months of commissioned service. However, Navy units that do not change status or locations frequently, such as land-based aviation units, did not submit validation reports because there is no Navy requirement to do so. Therefore, NMCC SORTS data for some Navy units are not validated as required. Results from our data base synchronization test showed that 42 percent of the 67 Navy units sampled had SORTS reports more than 30 days old in the NMCC data base. Further analysis of those units showed that all but two were land-based units.

Navy SORTS Training. Navy Warfare Publication 10-1-11 states that one of the responsibilities for SORTS management is to "establish a comprehensive training program to ensure that Navy personnel are thoroughly familiar with the use of SORTS data and the requirements and procedures for preparing timely and accurate SORTS." However, the Navy has not established a Navy-wide training program. The lack of such a program is the most significant problem related to Navy SORTS reporting.

Widely Acknowledged Deficiency. All eight Navy commands and staffs acknowledged the lack of training as a serious deficiency. The lack of

[2]Casualty Reports are closely associated with SORTS reports because they identify degraded unit equipment status to higher command. When a unit identifies the need to send a Casualty Report, the unit is required to submit a SORTS report.

SORTS training was specifically cited by officials at both fleet commands as one of the primary reasons for the high error rates in SORTS reporting. Further, 60 percent of Navy unit commanders responding to our survey (Appendix F) attributed unit SORTS errors to the lack of training. Navy commanding officers expressed frustration with the complexity of Navy SORTS procedures and identified the lack of training as a major problem.

Single Service Training Manager Support. The SORTS Single Service Training Manager, the U.S. Air Force Air Education and Training Command, provides no SORTS training or support to the Navy. Navy SORTS managers were unaware that a Single Service Training Manager existed and expressed interest in contacting the Single Service Training Manager.

Atlantic Fleet. The Atlantic Fleet's 1-day SORTS class for unit monitors is the only formal SORTS training performed in the Navy. The class was part of the contracted Operational Support System software support. The Atlantic Fleet staff characterized the course as "how-to-do SORTS" and had little information applicable to unit commander SORTS responsibilities. One of the unit monitors, who had 10 years experience with SORTS reporting, commented that the 1-day class was inadequate. The training did not cover all the intricacies of the complex Navy SORTS reporting system.

Pacific Fleet. The Pacific Fleet provides no formal training. Headquarters staff told us that informal on-the-job training was the predominant mechanism in use. An operations officer of a Pacific Fleet ship expressed frustration with having to use a "live and learn" approach in understanding the SORTS and Navy Warfare Publication 10-1-11. Part of the informal on-the-job training for unit monitors was assistance provided by the next level of command; however, the quality of that assistance was limited to the experience of the staff personnel. One command official reported that the staff was able to answer most questions concerning the SORTS, but the official believed formal training was necessary to save time and resources.

Effect of Lack of Training. The lack of a training program for unit personnel slows the processing of correct SORTS information to the Naval Status of Forces and NMCC SORTS data bases and inhibits the uniformity and standardization of reporting procedures. The absence of effective training also results in repeated reporting errors at the unit level. In its April 1993 report, "Status of Resources and Training System Reporting by National Guard and Reserve Units," the Office of the Inspector General, DoD, specifically identified unit training as a major deficiency of SORTS reporting in the Navy (see Appendix B). The same training deficiency remains today.

Navy SORTS Guidance. Concerns are widespread throughout the Navy regarding the inadequacy of Navy Warfare Publication 10-1-11. Officials at six of eight Navy organizations identified problems with the publication. The two warships visited did not identify problems with the publication.

Common concerns were that Navy Warfare Publication 10-1-11 was outdated, incomplete, and vague, which complicated understanding the procedures related to submitting SORTS reports. For example, one command staff representative

criticized procedures, complaining that Navy Warfare Publication 10-1-11 was "not even close to being clear and complete." Several command and unit representatives criticized vague and missing "explanation codes," which are used to describe unit deficiencies or operational activities. One staff representative stated that 20 codes existed for the same activity, with no clear definition among them. According to staff at another location, higher echelons of command reviewing SORTS data could find three units reporting three codes to explain the same problem.

Survey Results. The results of our unit commander survey mirror the concern that Navy Warfare Publication 10-1-11 is deficient. The survey concluded that Navy unit commanders view Navy Warfare Publication 10-1-11 as not user friendly, difficult to read and interpret, cumbersome, time consuming, and generic. The following comment is representative of numerous commander comments we received regarding the inadequacy of the publication.

> Unless the SORTS writer has had formal training, he/she can expect a very painful learning curve. The Pub [Navy Warfare Publication 10-1-11] is not stand alone, it can't be read by an inexperienced person to make them [a] fully functional, 100% accurate message writer.

Supplemental Instructions. The two warships that reported no problems with Navy Warfare Publication 10-1-11 use a common supplemental instruction provided by their type commanders. That additional guidance clarifies Navy Warfare Publication 10-1-11 by providing exact criteria for similar ships. The supplement provides decision flow charts to be used for more informed calculations and standardization.

Navy Warfare Publication 10-1-11 Revision. As of April 1995, Navy SORTS managers were aware of guidance deficiencies and were staffing a revision to Navy Warfare Publication 10-1-11. SORTS managers stated that they were attempting to the improve readability and user friendliness of the publication and to eliminate inconsistencies and missing information.

SORTS Inspections. Despite the problems identified by Navy managers, the Navy has performed few inspections to assist in determining the effectiveness of SORTS reporting. The Navy staff confirmed that inspections are not used as management oversight tools for SORTS reporting. Only one Navy audit (Naval Surface Reserve Force Personnel and Training Readiness, Audit Report 049-S-91, June 25, 1991) applicable to SORTS (Appendix B) has been completed. Although commands have completed inspections related to the SORTS, those inspections involve only administrative checks to determine whether SORTS reports were submitted. The inspections do not assess the quality of report calculations or preparation. Additionally, our survey results showed that only 24 percent of Navy units had been subject to audits or inspections of the SORTS.

Department of the Air Force

SORTS Procedures. Air Force guidance and procedures for unit reporting in Air Force Instruction 10-201, "Status of Resources and Training System," July 22, 1994, are deficient. The lack of guidance affected all levels of the Air Force, including the Air Staff.

Adequacy of Instruction. Air Force Instruction 10-201 is missing tables necessary for certain measurement calculations. Consequently, units had to use two or three superseded SORTS directives to complete reporting. Additionally, Air Force Instruction 10-201 lacks reporting guidance and adequate definitions of terms and remarks. Air Combat Command representatives stated that the deficiency has been ongoing since December 1992. Representatives at each major command commented that incompleteness of Air Force SORTS guidance has major implications for the standardization of unit SORTS reports Air Force-wide. Air Combat Command representatives explained that the lack of complete guidance not only allowed for differing interpretations of SORTS guidelines among Air Force organizations, but also inhibited the command's ability to design and develop a working input processor for SORTS modernization. Additionally, representatives at Headquarters, U.S. Air Forces in Europe, stated that the incompleteness of Air Force SORTS guidance severely hampered SORTS training.

Designed Operational Capability Statements. Designed Operational Capability statements, which form the basis of Air Force SORTS category measurements, were problematic. Specifically, commanders at three of the six Air Force units we visited informed us that their Designed Operational Capability statements lacked sufficient detail, clarity, or coverage of resources to adequately represent their current wartime mission. Commanders cited changing missions and lagging mission statements as a problem in accurately portraying unit status through the SORTS. Further, about 22 percent of the Air Force commanders responding to our survey considered mission guidance inadequate. The staff at one Air National Guard unit emphasized that the unit had to base it SORTS category measurements on "unrealistic criteria." The unit used a 1994 Designed Operational Capability statement to report 1995 resources, which had been significantly reduced from the 1994 level. As a result, the unit SORTS information inaccurately represented the unit's "go to war" status to decision makers.

Confusion Regarding Basis for SORTS Measurements. A functional area manager at Headquarters, U.S. Air Forces in Europe, stated that units were often confused about measurement criteria for SORTS reporting. The manager explained that units often perform calculations for their SORTS reports on items not specified in their Designed Operational Capability statements. He estimated that fully 30 percent of units reporting C-3 or C-4 did so incorrectly. Other headquarters staff representatives concurred with that view. The representatives indicated that uncertainty over SORTS measurement criteria potentially inhibited the accuracy of unit information presented to decision makers.

Potential Masking of Unit Deficiencies. Air Force major commands and units were concerned that SORTS category levels and measurement criteria masked unit deficiencies. The Air Combat Command staff cited several problems associated with inadequate Joint and Air Force SORTS guidance. Those problems included:

o masking deficiencies of mission-essential personnel in flying units as a result of a broad definition of which personnel are critical to mission accomplishment,

o inadequately reporting unit overages, and

o allowing unit personnel to be reported at home station when deployed.

Other Air Force sites experienced similar problems. For example, one flying unit commander indicated that unless the commander made remarks in the report or subjectively downgraded unit status, critical flight crew shortages can be invisible in the SORTS. A support unit commander expressed concern about reporting all unit personnel as "available" at home station when he had numerous personnel deployed at various locations in and out of the country. The commander believed that too many assumptions were made about returning unit personnel in time to respond to wartime or contingency requirements.

Fragmented Unit Reporting. Air Force policy does not support fragmented unit SORTS reporting. The Air Force reports fragmented units using the parent organization's unit identification code. Consequently, the actual location and status of both the parent and its deployed subelements are not visible in the SORTS.

Effects on Joint Users. The staff at U.S. Atlantic Command indicated that their biggest frustration in trying to provide information to the commander in chief and senior staff was determining unit locations. The staff stated that the lack of Air Force fragmented unit reporting was a major problem. Staff representatives demonstrated multiple unit location data for the same Air Force unit identification code in both the SORTS and the JOPES. The command could not determine the correct status of a unit without personal contact with either the Air Force component command or the unit. That procedure created difficulties in assessing unit support for Operations Plans. Staff representatives concluded that Air Force policy for fragmented unit reporting was unacceptable.

Air Force Modernization of the SORTS. Despite a troublesome 2-year effort, in March 1995, the Air Force satisfactorily developed software capable of meeting the main Joint Staff objective of processing SORTS messages in the USMTF protocol. Staff representatives at each of the four Air Force major commands attributed the slow-moving SORTS modernization to the lack of effective implementation planning and inadequate Air Staff guidance. In addition, the software (SORTS 6.0) had been distributed, even though it contained technical deficiencies. The U.S. Air Forces in Europe staff spent considerable time developing solutions and had to manually correct SORTS data.

Software Development. Headquarters, Air Combat Command took the initiative to develop a SORTS 6.0 front-end processor, the SORTS input mechanism, because the Air Staff had not provided clear guidance for the SORTS modernization. Software developers were frustrated because of unclear, often-changing requirements; unresponsiveness from Air Force and Joint Staff technical managers; and the lack of funding for developing the Air Force SORTS 6.0 front-end processor.

Documentation and Training, and Significant Technical Problems. The staff at Headquarters, Air National Guard, stated that the lack of adequate implementation planning, combined with the emphasis on implementing SORTS 6.0, resulted in an inadequate system of documentation for the SORTS upgrade and little training for units and SORTS managers. Technical problems associated with the GSORTS File Transfer Protocol also slowed the SORTS modernization effort. Technical problems caused significant delays in the ability of Air National Guard to process and forward SORTS data to higher authorities.

Monitoring and Data Quality Controls. Monitoring of various Air Force SORTS data bases is effective, particularly at the major command level. However, the Air Force does not monitor data in the NMCC data base for accuracy. The major commands lack access to NMCC SORTS data and are unable to validate the information. Conversely, although Air Staff SORTS managers have access to the NMCC data base, the managers did not have mechanisms to monitor the accuracy of the NMCC data despite identified data base synchronization problems. Following our visit, the Air Staff and DISA agreed to use the NMCC SORTS data base as the Air Force data base. That action will resolve previous problems with data base disparities.

New Commander SORTS Orientation Briefings. The terms Air Staff SORTS managers used in briefing new operations squadron commanders on SORTS were incorrect and misleading. Specifically, the managers defined SORTS reporting and category levels in "combat readiness" terms. Those terms applied to the previous unit reporting system, the Unit Status and Identity Report, which the SORTS replaced in 1986. As a result, commanders were given an erroneous definition of the SORTS and its intended purpose. In May 1993, an Air Force Inspector General report (Functional Management of Aircrew Training in Support of Theater War Plans, PN 88-634) identified the misconception of the purpose and function of the SORTS as a deficiency evident at all levels of the Air Force (see Appendix B).

U.S. Marine Corps

The timeliness of SORTS reports for Marine Corps units is degraded by tedious and outdated procedures, a chain of command review, and failure to complete unit reporting within the required time frame.

Unit SORTS Procedures. Marine Corps staffs, from the headquarters to the unit level, described Marine Corps Order 3000.13, "Marine Corps Status of Resources and Training System (SORTS) Standing Operating Procedures," October 2, 1987, as outdated and difficult to use. The Marine Corps staff described Marine Corps SORTS procedures as cumbersome with a tendency to influence minimum reporting (on a monthly basis only). Marine Corps Order 3000.13 and its interim changes do not accurately reflect CJCS MOP 11 policy. Marine Corps SORTS managers stated that the Marine Corps would not update procedures until SORTS modernization issues, such as the development of a new Marine Corps front-end processor, are resolved.

Command Echelon Review of SORTS Reports. The timeliness of Marine Corps SORTS is adversely affected by the required chain of command review before Marine Corps SORTS data are submitted to the NMCC. The Marine Force Pacific staff stated that they receive data that are from 3 days to 2 weeks old. The Marine Forces Reserve staff indicated that 5 to 19 days are used to process the data from unit level to the NMCC data base.

Timeliness of Data. The SORTS monitor in a Reserve component unit told us that unit SORTS reports are normally based on information that is 20 days old at time of submission. Results from our unit commanders survey also indicated that some unit SORTS submissions were many days old at the time of submission. About 36 percent (5 of 14) of the Marine Corps Reserves unit commanders responded that units used data that were more than 4 days old to calculate personnel levels in SORTS reports. One commander commented that data used to report personnel levels in SORTS are 30 days old at submission.

Unit Validation Reporting. Marine Corps units were not submitting validation reports in accordance with CJCS MOP 11 and Joint Publication 1-03.3. During our data base synchronization test (Appendix G), we queried 21 Marine Corps unit identification codes for the last update in the NMCC data base. Of the 21 units, data for 4 (about 19 percent) had been updated more than 30 days before the test date.

Appendix F. Unit Commander Survey

Background and Purpose

We surveyed unit commanders to help assess SORTS reporting processes and procedures at the unit level. We considered unit level input integral to our evaluation because the SORTS depends on individual reporting units to provide the initial raw data that are subsequently forwarded through Service and intermediate command reporting mechanisms to the National Command Authorities. The survey supplemented data we obtained from visits to 13 reporting units representing all the Services and their components. Our analysis results are based on simple tabulation of the data, not a statistical projection.

Sample Universe

We obtained listings of all units registered in the SORTS data base from the Army, Navy, Air Force, and Marine Corps and selected 600 for the anonymous survey. We requested that only regularly reporting units complete the entire survey. Our sample included units from each of those Services, including Active and Reserve components. We received 349 responses. A total of 308 units completed the survey.

Summary of Analysis

Our analysis was based on responses to 64 questions covering a wide range of unit procedures and experiences with the SORTS. Commanders were asked to select the most applicable response or responses provided with each question. Additionally, we requested and received written comments for 32 of the 64 questions. In relatively few instances, commanders omitted responses to particular questions.

As a result of our analysis of the survey data, we concluded that units complete SORTS reports honestly and to the best of their abilities. However, the SORTS is complex, cumbersome, and difficult to understand and use. That impression is reinforced by survey data that showed:

o unit guidance and procedures are vague, incomplete, and outdated;

o those responsible for reporting and approving unit reports often do not receive formal training; and

o units do not receive substantive feedback on their submissions.

Consequently, units need to apply a greater degree of individual judgment and interpretation, increasing the likelihood of disparate SORTS reporting, which detracts from the relevance and value of unit information reported to high-level decision makers. More than 9,500 units routinely report in the SORTS.

The survey also showed that the Services and their major commands perform few inspections of unit SORTS reporting. Without periodic management controls to validate the reliability of reported information, the integrity of SORTS information is questionable.

Significant Survey Results

We believe the following survey results are the most significant.

Commanders believe that unit SORTS reports are honest and accurate reflections of units' abilities to undertake their wartime missions; however, commanders recommend improvements.

Units consistently stated that the resource status in SORTS reports accurately reflected their ability to undertake wartime missions. Only 33 of 308 units did not consider the SORTS report an accurate portrayal of their abilities to undertake wartime missions. However, 130 of 299 unit commanders noted that improvements could be enacted to more accurately reflect the abilities of units to undertake their wartime mission. Those improvements are needed in guidance, training, and feedback.

Additionally, unit commanders did not feel pressured to inflate reports. Only 25 reported that they felt pressured to inflate reports.

Units of all the Services face reporting challenges because of poor SORTS guidance and procedures.

Complaints of vague, incomplete, confusing, often-changing, and outdated guidance and procedures represented the single biggest concern of unit commanders. Vague and incomplete SORTS reporting procedures cause confusion at the reporting level, increasing the potential for like units with similar resources to report different unit resource and training levels.

Unit commanders and SORTS monitors do not receive enough training to prepare them for their SORTS responsibilities.

Inadequate training contributes to higher error rates and causes ineffective unit-level oversight. Commanders who are not trained are reviewing and signing reports calculated by unit personnel who also have not received formal training. However, commanders overwhelmingly believed that initial and recurring training for themselves and unit SORTS monitors was essential for effective SORTS reporting.

Units are not receiving feedback on their report submissions.

Units are not receiving feedback on SORTS reports they submit. Lack of feedback does not prevent submission of reports or necessarily result in inaccurate reports. However, lack of feedback suggests that effective quality control of unit submissions is questionable. Unit commanders often commented that they had no acknowledgment of whether their reports were received, were correct, or were current as portrayed to high-level decision makers. For example, one unit commander noted that inaccurate reports were unknowingly submitted for 6 months before higher headquarters requested that the unit correct the mistakes.

Unit SORTS reporting generally lacks oversight.

With the exception of the Marine Corps, unit commanders generally reported that they were not subjected to higher command audits and inspections. The Army, which has the highest number of SORTS reporting units (more than 5,100 or 53 percent) lacked oversight. Of 38 Army respondents, 37 indicated that their unit status reports were not inspected. We question the reliability of SORTS if the Services do not periodically review and validate the data and the procedures used to calculate and report them.

Additional Survey Results

Confusion exists concerning the purpose of the SORTS.

The purpose of SORTS, as defined by Joint Publication 1-03.3 and CJCS MOP 11, is not understood at the unit level. Joint Publication 1-03.3 and CJCS MOP 11 do not characterize SORTS as a readiness system. However, 235 units defined SORTS as a unit resource status system and a readiness reporting system. Only 33 units identified SORTS solely as a resource status reporting system.

Units perceive SORTS as a tool to support Service requirements, not Joint user requirements.

Units view SORTS as a Service system and not a Joint system. Units were given the option of selecting any or all of the command levels as the principal

users of the SORTS. Only 93 respondents identified unified commanders as principal users of the SORTS, and only 94 listed the National Military Command System as a principal user. Of the respondents, 235 units identified intermediate commands as principal users, and 162 listed Service headquarters as principal users.

The timeliness of data for SORTS reporting is inconsistent among the Services.

The data used to compute SORTS reports are frequently not current. The data often reflect resource status that is more than 4 days old. In response to a request to review the age of data reported for SORTS personnel, equipment, and training resource levels, unit commanders reported the following.

o Army, Army Reserve, and Army National Guard units consistently base Unit Status Reports on data that are more than 24 hours old in every resource category. The data reported among Army Reserve component units were older than that reported by Active component units. For example, a majority of Army Reserve and Army National Guard units consistently reported that it took 72 hours or more to determine personnel, equipment, and training levels.

o Active Navy units tend to use current data (within 24 hours) to compute reports, but Naval Reserve units' data exceed 24 hours.

o Air Force, Air Force Reserve, and Air National Guard units use current data (within 24 hours) to compute reports.

o Active component Marine Corps units based reports on current data (within 24 hours); Reserve component units' data generally exceed 24 hours.

Commanders identified a potential problem in the area of mission guidance for Air Force units.

Of the responses, 273 commanders considered adequate their units' Modified Tables of Organization and Equipment, Required Operational Capabilities\Projected Operating Environments, Designed Operational Capability statements, and Tables of Organization and Equipment. Those documents form the basis for unit SORTS category measurements. Army, Navy, and Marine Corps units considered their mission guidance adequate. Of 87 Air Force Active and Reserve component units, 19 were dissatisfied with mission guidance.

Of the 28 comments on insufficient mission guidance, 23 were from Air Force Active and Reserve component units that expressed dissatisfaction with Designed Operational Capability statements. Responses indicated that Designed Operational Capability statements contained administrative errors, were obsolete, or conflicted with other guidance.

SORTS reporting guidance and procedures are inadequate.

The survey contained six questions relating to the adequacy of SORTS reporting guidance and procedures. Survey results showed that inadequate SORTS reporting guidance and procedures constitute the most significant problem units face with the SORTS. Unit commanders of all Services consistently responded that procedural guidance was outdated, problematic, and difficult.

Of 123 units that encountered technical and functional problems during SORTS reporting, 84 indicated that those problems were related to unclear definitions, measurement criteria, and instructions.

In response to a series of survey questions regarding the clarity of guidance and unit responsibilities for SORTS reporting, 187 of 303 units noted that guidance could be better. Of 308 unit commanders, 200 noted that their guidance requires unit interpretation.

Because of insufficient guidance, units occasionally needed assistance in compiling reports. Unit commanders considered the process of compiling and submitting reports somewhat difficult, and 206 units considered the process somewhat complex. Only 77 commanders noted that they rarely or never needed assistance.

The following comments are representative of responses on the adequacy of SORTS reporting guidance and procedures.

Army. Army unit commanders commented that Army Regulation 220-1 lacked clear and objective guidance for the training category. Commanders recommended that the Regulation provide more specific detail regarding procedures for determining calculations of category levels and for standardizing reporting requirements. Commanders noted that cumbersome and time-consuming manual calculations delayed report submissions.

Commanders also noted that Unit Status Report software upgrades were not supported by accompanying guidance on their use. Commanders recommended that future distribution of software include guidance on installation and use.

Navy. Navy unit commanders characterized Navy Warfare Publication 10-1-11 as "not user friendly," difficult to read, cumbersome, time consuming, generic, and difficult to interpret. Commanders expressed concerns related to comprehending the publication in order to measure resource levels and format unit SORTS reports. Commanders recommended that the publication be rewritten to provide more specific guidance, reduce unit interpretation of reporting procedures, provide users an easier to read format, and incorporate changes into the revision. Units noted that definitions in the publication are sometimes unclear and must be interpreted by the unit. As a result, respondents stated that units and intermediate commands do not report against common standards when measuring resource levels.

Air Force. Air Force units noted deficiencies related to SORTS procedural and software guidance. Commanders perceived a lack of guidance relating to

measurement criteria and worktables for computing measurements. For example, units noted that they must use an outdated regulation to determine resource levels because Air Force Instruction 10-201 is incomplete. Other responses cited distribution of the new SORTS software without guidance.

Air Force units recommended that regulations be updated and include more detail. Commanders recommended that regulations include worktables for determining resource levels.

Marine Corps. Marine Corps commanders stated that the instructions for preparing reports in Marine Corps Order 3000.13 were sometimes vague, required unit or intermediate command interpretation, and were difficult to understand. As a result, commanders noted that measurement criteria are not specific, making the criteria open to interpretation by units and intermediate commands. Commanders strongly recommended that Marine Corps Order 3000.13 be updated and that specific criteria be established for determining resource levels, specifically for reporting military occupational speciality shortages and equipment located at other commands.

Commanders receive little feedback on the effectiveness of unit SORTS reports.

Of the unit commanders responding, 130 indicated that they did not receive feedback in response to SORTS reports they submitted. When feedback did occur, it consisted of error reports, telephone calls, and other conversations. One commander stated that "backlash, not feedback" was received.

The lack of feedback prevents units from knowing what higher command levels actually received, whether the information received was correct, or, as several commanders commented, whether anyone up the chain was concerned. For example, a Navy unit commanding officer wrote that a personnel shortage was ignored until the unit reported C-4. The feedback was characterized as "too little too late."

Inspections and audits are not routinely performed to validate the effectiveness of unit SORTS reporting.

The Services and their Reserve components generally do not perform inspections or audits to determine whether SORTS reporting requirements are met. Of 308 commanders, 206 responded that unit SORTS reporting had not been inspected or audited. The commanders responded for 37 of 38 Army units. Conversely, the Marine Corps inspected 32 of 46 units, and the Air National Guard inspected 14 of 21 units.

More formal training is needed.

Unit Commander Training. Commanders (200 of 303 responding) identified a need for SORTS training. However, only 50 percent of the commanders surveyed had received training on the SORTS. Of those commanders who received training, 71 percent listed the training as informal, on-the-job training.

Unit Monitor Training. Of 339 respondents, 154 reported that unit SORTS monitors had not received formal training. In units where monitors received training, 65 commanders responded that the training lasted 1 day or less than a day.

Units responded that SORTS monitors need initial training and follow-on training. Of 309 responses, 298 commanders noted that initial training was needed. Recurring training was identified as a need by 170 of 317 respondents.

Commanders' comments reinforced the need for both commander and unit monitor training.

Additional Commander Comments on Training. Commanders view some type of SORTS training as essential. Commanders expressed the need for training to provide a basic understanding of the SORTS, including the purpose of the SORTS report and who receives it. Commanders identified the need for orientation to provide new commanders an overview of the SORTS and an understanding of the basic purpose of the SORTS. Suggestions for implementing training varied from a short video presentation to incorporating SORTS training into the professional military education curriculum at Service schools. Of 304 commanders responding, 261 had never been requested to provide input related to SORTS training.

Few commanders feel pressured to inflate reports.

In responding to whether they felt pressured to inflate reports, 153 commanders disagreed and 76 strongly disagreed. Only 17 agreed and 8 strongly agreed that pressure was exerted.

Appendix G. Data Base Synchronization Tests

Background and Sample Universe

On June 13, 1995, the evaluation team performed SORTS data base synchronization tests to assess the congruency of information among respective SORTS data bases of the Joint Staff, unified commands, and Service headquarters. Time constraints limited testing to only three of the nine unified commands. The three commands were the U.S. Atlantic Command, the U.S. Special Operations Command, and the U.S. Strategic Command. Marine Corps headquarters did not participate because the Marine Corps extracts SORTS information on its units from the NMCC and does not maintain its own data base. However, Marine Corps unit identification codes were included in the tests.

We performed the tests 2 months after a major Joint Staff, Service, and DISA initiative to synchronize the various SORTS data bases. During that synchronization, DISA purged NMCC SORTS information and replaced it with updated Service data. DISA then provided NMCC SORTS data to the unified commands.

We requested that participants in the test simultaneously retrieve information from their respective SORTS data bases using common, universal lists of unit identification codes randomly selected across the unified commands and the Services. The Joint Staff and Services also retrieved the same data elements for a second group of units associated with the participating unified commands. The commands queried their data bases against associated unit identification codes only. We compared all data to determine whether differences existed in the information in the various SORTS data bases. We used a total of 221 unit identification codes[1] for the comparisons.

For the purposes of this appendix we use the following acronyms.

BUPDATE[2]	Time of SORTS Report Update
SEAL	Sea Air Land
UIC	Unit Identification Code

[1]Although 224 unit identification codes were used for the comparison, 3 were duplicated among the lists.

[2]A BUPDATE is a computer-generated element indicating the date of the last SORTS update for a unit identification code.

Sample Results Using Universal UICs

Our universal list consisted of 52 (12 Army, 15 Navy, 20 Air Force, and 5 Marine Corps) UICs. For all 52 UICs, the SORTS data elements in the NMCC and unified command data bases were congruent.[3] However, differences existed between the Services and the NMCC data bases.

Army. Eleven of the twelve Army UICs were assigned to measured units. We verified that the remaining UIC belonged to a nonreporting headquarters element. The NMCC and the Army data bases showed differences in measured resource levels for 4 of the 11 measured units. For three units, the data bases showed different overall C-levels.

o The NMCC data base showed one deployed aviation company with an overall level of C-4 because of an equipment and supplies on-hand level of S-4. However, the Army data base for the same unit reflected an overall category level of C-3 as a result of an S-3 level. Also, although both data bases showed the same personnel category level for this UIC, the data bases cited different reason codes for being lower than P-1.

o An infantry unit reported an overall category level of C-3 in the NMCC data base because of an S-3 level, but the unit reflected an overall C-2 in the Army data base because of an S-2 level. Also, the NMCC data base showed an overall C-1 for a medical unit, but the Army data base showed a C-2 because of a reported S-2 level.

o Although an aviation unit was reported as overall C-4 in both the NMCC and the Army data bases, the NMCC data base showed an S-3 level for the unit, while the Army data base showed the unit as S-2.

o Of the 11 measured units, 9 last submitted a SORTS report with an "as of" date of May 15, 1995, in the Army data base, the reporting cycle before the test date. One unit last submitted a report with an "as of" date of April 15, 1995. The remaining unit, an engineering battalion, last reported as of January 15, 1995. With regard to those two units, no difference in measured levels existed between the NMCC and the Army data bases. However, for all 11 units, the BUPDATE in the NMCC data base was on or after June 1, 1995. The reporting "as of" date in the Army data base for most units we queried was May 15, 1995. The BUPDATE in the NMCC data base listed June 1, 1995, or later for those units, suggesting a processing period for the NMCC data base of more than 2 weeks.

Navy. All 15 Navy UICs were assigned to measured units and appeared in the NMCC data base. However, two units, a Naval Reserve fleet hospital and a Military Sealift Command combat stores ship, were not in the Navy data base.

[3]Because the NMCC and unified command SORTS data bases were identical, subsequent references to the NMCC data base will also apply to the unified commands.

Twelve of thirteen UICs found in both the Navy and the NMCC SORTS data bases displayed the same measured resource levels. A helicopter unit reported in the NMCC data base with a BUPDATE of June 7, 1995, reflected an overall category level of C-2 because of a training level of T-2. However, the Navy data base showed the unit with an overall level of C-4 because of a training level of T-4. A check of the BUPDATE of the unit showed that the Navy data base had not been updated for that unit since March 13, 1995, about 3 months after the NMCC data base had been updated. We concluded that processing of the unit SORTS report information to the NMCC data base was successful, but unsuccessful to the Navy SORTS data base.

Air Force. For the 20 Air Force UICs, the Air Force and the NMCC data bases showed aircraft for a fighter squadron deployed to different locations. The following discrepancies also existed between the data bases.

o Of the 20 UICs, 8 listed no data in the overall category level or measured resource areas in the Air Force and NMCC data bases, indicating that the UICs belonged to registered units that are not required to regularly submit SORTS reports. Six of the eight UICs belonged to various detachments of a single engineering management squadron in U.S. Air Forces in Europe. Personnel at Headquarters, U.S. Air Forces in Europe informed us that the squadron had been previously deactivated, but was not deleted from the SORTS data base. Subsequently, Headquarters, U.S. Air Forces in Europe submitted appropriate transactions to delete the unit from the SORTS. We confirmed that of the two remaining registered units, one unit was a nonreporting unit. The second unit, a bomb group, was in error. The unit SORTS Monitor verified that the bomb group UIC was correct and stated that the most recent bomb group SORTS report, submitted in late May, included measured resource levels as required. However, neither the NMCC nor the Air Force data bases contained that information.

o There were no delinquent BUPDATEs for the 12 Air Force UICs reported as measured units[4] during the synchronization test.

Marine Corps. All five Marine Corps UICs that we queried represented measured units. The only anomaly of the five UICs we queried was a BUPDATE of May 12, 1995, for one aviation unit. BUPDATEs for all other units were within 30 days of the test date.

[4]Measured units are registered units that are required to regularly submit SORTS reports. Units that are registered-only units do not submit regular SORTS reports.

Sample Results for U.S. Atlantic Command UICs

We conducted the same query against 68 UICs associated with the U.S. Atlantic Command for comparison among the NMCC, the U.S. Atlantic Command, and Service data bases. There were no differences between the NMCC and the U.S. Atlantic Command data bases.

Army. Each of 18 UICs we queried represented measured Army units. Measured resource levels were identical in the Army and NMCC data bases for 17 of the 18 units.

o The "as of" date for an engineering battalion report in the Army data base was May 15, 1995, while the BUPDATE in the NMCC data base was reported as June 13, 1995. Both data bases reflected the battalion as an overall C-4 category level. The NMCC data base cited P-4 as the reason for the overall level, while the Army data base cited the S-level as the reason. However, the Army data base listed only an S-3 level, but indicated an R-4 level for the unit. In contrast, the NMCC data base reflected an R-2. Additionally, both data bases showed the unit with a training level of T-2, but cited different reason codes.

o The NMCC data base listed a BUPDATE of May 3, 1995, for another Army unit which had an "as of" date of May 15, 1995, in the Army data base. Although no changes were displayed in measured resource levels, the difference in the dates indicates that the NMCC data base did not receive the last report in the Army data base.

Navy. We compared 17 UICs of which 15 were for Navy units and 2 were for Coast Guard vessels. For measured resource levels, complete synchronization existed between the Navy and NMCC data bases for the 15 Navy UICs, although a considerable difference in BUPDATEs existed for the remaining 2 units. Our findings concerning the two Coast Guard UICs were more significant.

o While measured resource area levels agreed, the BUPDATE for one Navy aviation unit was June 1, 1995, in the NMCC data base, but April 14, 1995, in the Navy data base. Another aviation unit had a BUPDATE of April 21, 1995, in the NMCC data base compared to May 19, 1995, in the Navy data base.

o Of the two Coast Guard UICs we queried, Navy representatives reported that one was not in the Navy data base. However, the NMCC data base showed that unit with a BUPDATE of March 28, 1995. Further, the unit was measured against two mission areas. The other Coast Guard vessel was also measured in the NMCC data base against two mission areas. Although the Navy data base also showed measurements for that unit against two missions, the Navy and NMCC data bases reflected different overall (C-level) and personnel category (P-level) levels for one of the unit missions.

Air Force. We compared 17 UICs from Air Force measured units. Measured resource levels for 16 of the 17 UICs were consistent between the NMCC and the Air Force data bases, with 15 of the 17 reflecting identical locations. All 17 UICs possessed a BUPDATE of June 1, 1995, or later.

o Although the NMCC and the Air Force data bases showed a BUPDATE of June 8, 1995, they contained a different equipment condition level (R-level) for a bomb squadron. The Air Force data base displayed R-1 for the unit, while the NMCC data base showed the unit as R-2. However, the overall C-level for the unit was not affected because of other lower resource levels.

o Both data bases contained the same BUPDATE (June 5, 1995), but showed different aircraft deployments for a fighter squadron. The Air Force data base did not display aircraft at two deployed locations that were shown in the NMCC data base. Another squadron was displayed with aircraft at seven locations in the Air Force data base with a BUPDATE of June 5, 1995, but the NMCC data base listed only six locations and a BUPDATE of June 6, 1995.

Marine Corps. We queried 17 UICs assigned to measured units for comparison between the NMCC and U.S. Atlantic Command data bases. Both data bases listed identical data for the 17 UICs. However, four UICs listed BUPDATEs more than 30 days old.

Sample Results for U.S. Strategic Command UICs

We queried 27 UICs associated with the U.S. Strategic Command. Of those, 17 were Air Force units and 10 were Navy units. We found complete synchronization between the NMCC and U.S. Strategic Command data bases for all 27 UICs.

Navy. We queried 10 Navy UICs for measured units. There were no inconsistencies in reported levels between the Navy and NMCC data bases. However, 6 of the 10 UICs listed BUPDATEs more than 30 days old in both data bases which is in violation of Joint Publication 1-03.3 requirements for validation reporting. Five of the six UICs were assigned to Navy aviation units of the same type (fixed wing reconnaissance). With one exception, the BUPDATEs listed in the Navy and NMCC data bases were the same or within one day of each other. The exception was a geographically separated detachment to a Navy aviation unit of the type mentioned above. A BUPDATE for the detachment, at Travis Air Force Base, was listed as December 1, 1994, in the Navy data base, but as March 28, 1995, in the NMCC data base. The detachment was assigned a separate UIC and performed its own reporting. The parent unit showed a BUPDATE of April 25, 1995, in both data bases. The parent unit confirmed that the date reflected the most recent report. A unit staff member told us that units were required to report only when changes in status

occur and that no requirement existed to submit validation reports if no changes had occurred in a 30-day period. Reported category levels agreed in all data bases.

Air Force. The NMCC data base reported measured resource levels for 14 of 17 Air Force UICs. However, the Air Force data base showed only 13 as measured units. A bomb squadron was reported as a measured unit in the NMCC data base, but the Air Force data base had no resource level information on that unit. Both data bases listed BUPDATEs of June 8, 1995, for the unit. Additionally, the NMCC data base displayed deployed aircraft that were not reflected in the Air Force data base.

o We contacted each of the three units listed in the NMCC data base without measured levels and verified that all three were registered-only units that were not required to routinely report.

o An inconsistency existed between the NMCC and Air Force data bases for a missile squadron. The NMCC data base displayed two sets of measured resource area levels as if the unit had reported against two missions. However, the Air Force data base listed only one set of measured resource area levels. The SORTS monitor at the parent unit wing command post confirmed that unit reporting was accomplished against a single mission only. The monitor was unaware of the dual entry in the NMCC data base.

o There were no delinquent BUPDATEs.

Sample Results for U.S. Special Operations Command UICs

We queried 77 UICs associated with the command. Of those, 22 were Air Force units, 25 were Navy units, and 30 were Army units. No differences in information existed between the NMCC and command data bases. However, discrepancies existed between data bases for each Service and the NMCC.

Army. All 30 Army UICs we queried were assigned to measured units. Of the 30 UICs, information on the measured resource levels for 3 lacked congruency between the NMCC and the Army data bases. Three additional UICs displayed inconsistencies for BUPDATEs.

o Measured resource levels for two UICs were identical in the NMCC and Army data bases with each unit reporting lower than P-1 for personnel. However, reason codes differed between the data bases.

o The data bases reflected significant differences for a third unit, a civil affairs battalion. The NMCC data base showed the battalion with a BUPDATE of May 23, 1995, and with an overall C-2 because of a P-2 level. The Army data base showed the battalion with a BUPDATE of May 15, 1995, and listed the unit as an overall C-3 because of a P-3 level.

o Reports in the Army data base for all 30 UICs showed "as of" dates of May 15, 1995 (the last monthly reporting cycle). However, for three units, the NMCC data base listed BUPDATEs of April 10, 24, and 29, 1995. The differing BUPDATEs suggest that the May 15, 1995, Army reports were not processed into the NMCC data base. No change in status was reported for any of the units in the May 15, 1995, report.

Navy. Although there were no differences between the NMCC and U.S. Special Operations Command data bases for the 25 Navy UICs tested, discrepancies existed between the Navy and NMCC data bases.

o All 25 UICs in the NMCC data base reported measured resource area levels. However, 11 of the 25 UICs were not in the Navy data base. Of the 11 UICs, 7 were assigned to SEAL teams at the platoon level. The Navy data base contained no information on SEAL platoons. A Navy staff member was uncertain of the rationale for that discrepancy, but reasoned that Navy headquarters did not require that level of information. Regarding the information in the NMCC data base, the staff member emphasized the importance of the information on the SEAL platoons for the U.S. Special Operations Command and its Navy component because they prepare those units for missions. Of the remaining four UICs not shown in the Navy data base, two belonged to special boat unit detachments. Other special boat unit detachments were reported and measured in the Navy data base. Similarly, none of the SEAL delivery vehicle platoons from our test list of UICs was in the Navy data base, although another SEAL delivery vehicle platoon was reported and measured in that data base. The remaining UIC missing from the Navy data base was assigned to a patrol craft.

o Of 14 UICs reported and measured in the NMCC and Navy data bases, 3 reflected differences in measured resource area levels. Differences for two UICs were probably caused by outdated reports in the Navy data base. Both UICs were for special boat unit detachments with BUPDATEs of February 16, 1995, and July 14, 1994, in the Navy data base. The NMCC data base reflected BUPDATEs of May 8, 1995, and April 5, 1995. Both data bases reflected different overall C-levels for the detachments. For the third UIC, another special boat unit detachment, the data bases listed BUPDATEs only 4 days apart, but reflected conflicting R-levels.

o Of the 25 UICs reported in the NMCC data base, 17 showed BUPDATEs more than 30 days old. Eleven of the fourteen UICs found in the Navy data base displayed BUPDATEs in excess of 30 days. For one special boat unit detachment, the BUPDATE in the Navy data base showed September 15, 1993, as compared to March 29, 1995, in the NMCC data base. Both data bases showed identical resource levels for the UICs tested.

Air Force. Only 1 of the 22 Air Force UICs was assigned to a nonmeasured unit, and that UIC was reflected correctly in all data bases. We contacted the unit and verified the accuracy of its reported status. For all 21 measured units, resource area levels reported in the NMCC and the Air Force data bases agreed.

o Of the 21 measured units, the NMCC and Air Force data bases reflected differences in major equipment locations for 7 units. For all seven units, the Air Force data base listed locations other than home station for deployed assets. Those locations differed from the locations in the NMCC data base. The BUPDATE for six of the seven units in both data bases was June 7, 1995, 1 week before the test date. The BUPDATEs for the remaining unit were June 12 and 13, 1995, for the NMCC and Air Force data bases, respectively. Differences in the time of day that the DISA and the Air Force processed SORTS reports could account for the difference in location for the seventh unit.

Summary

For all 221 UICs tested, we found complete synchronization between the NMCC and unified command data bases. We expected that result because of the April 1, 1995, synchronization of the data bases (see Part I). Despite that effort, discrepancies existed, with the exception of the Marine Corps. A brief summary for each of the Services follows.

Army. Of 60 UICs, 59 were assigned to measured units in the SORTS.

o The NMCC and Army data bases showed different resource area levels or reason codes for about 14 percent (8 of 59) of the measured units. All eight UICs reflected reporting "as of" dates of May 15, 1995, in the Army data base and BUPDATEs of June 1, 1995, or later in the NMCC data base.

o Of the 59 measured units, about 10 percent (6 of 59) had BUPDATEs in the NMCC data base or "as of" dates in the Army data base more than 30 days old. Four of the units listed BUPDATEs in the NMCC data base that preceded the Army data base report date.

Navy. Included among the 67 UICs we queried were two belonging to Coast Guard units.

o The Navy staff reported that 20 percent (13 of 65) of the UICs were not found in the Navy data base. Of the two Coast Guard units, one was not listed in the Navy data base. All 67 UICs were listed as measured units in the NMCC and U.S. Atlantic Command data bases.

o Of the UICs (Navy and Coast Guard) listed in both the NMCC and Navy data bases, more than 9 percent (5 of 53) had inconsistencies in measured resource levels and reason codes. The one Coast Guard unit listed in both data bases was included in that figure.

o About 42 percent (28 of 67) of the UICs in the NMCC data base had BUPDATEs more than 30 days old. About 40 percent (21 of 53) of those UICs also listed BUPDATEs in excess of 30 days in the Navy data base.

Air Force. Of the 221 UICs we tested, 76 (about 34 percent) were assigned to Air Force units.

o The Air Force data base listed 63 UICs as measured units compared to 64 in the NMCC data base. Measured resource levels for a bomb squadron were missing in the Air Force data base. Additionally, both data bases reflected another bomb unit incorrectly, showing it as a registered-only unit with no measured resource levels.

o Information on measured resource levels and reason codes differed between the NMCC and Air Force data bases for about 6 percent (4 of 64) of queried measured units.

o Locations for major equipment were inconsistent for about 17 percent (11 of 64) of the measured units.

o There were no delinquent BUPDATEs for the 64 measured units.

Marine Corps. All 21 UICs tested were assigned to measured units. Of those UICs, about 19 percent (4 of 21) had BUPDATEs in the NMCC data base more than 30 days old as of the test date.

The synchronization test results indicated whether a unit commander had subjectively assessed the overall C-level of a unit up or down from the calculated resource levels. Of the 21 Marine UICs, one unit commander subjectively lowered the unit's overall C-level; no overall C-levels had been raised. Conversely, of the 59 measured Army units, 1 Army commander reported a higher overall C-level that was not consistent with the calculated resource levels. Air Force units displayed the most activity. Of the 64 Air Force UICs reported as measured in the NMCC data base, 18 (about 28 percent) involved a commander assessment. Of the 18, 13 were assessed upward and 5 downward.

SORTS and JOPES Comparison Test

We used the universal list of UICs to test congruency of unit information in both the NMCC SORTS and JOPES data bases. For comparison, we queried 14 data elements transferred from SORTS to JOPES for each of the 52 UICs. We performed this test simultaneously with the SORTS data base synchronization test.

Air Force. Basic identity data elements for all 20 Air Force UICs were in the JOPES data base, but no measured resource level data for any of the measured Air Force units existed in the JOPES data base as required by Joint Publication 1-03.3.

o The DISA staff was unaware that the data were missing. After researching the problem, a DISA staff member told us that a coding error

precluded the transfer of "readiness related data" for Air Force units to the JOPES data base. The DISA staff member stated that the programming code was incorrectly altered in early April 1995 during system changes and speculated that the transfer of the particular data had not occurred since that time. The staff member also told us that since that time, the DISA had not received complaints or comments concerning the lack of the data in JOPES. The staff member stated that his office would immediately correct the discrepancy.

o While we could make only a limited comparison, BUPDATEs in the JOPES and SORTS NMCC data bases provided no evidence that SORTS information in the JOPES data base is dated beyond information in the NMCC SORTS data base for Air Force units.

Other Services. Comparisons between the JOPES and SORTS NMCC data base reports for the Army, Navy, and Marine Corps showed congruency of all information with one exception, training reason codes. Of the 52 UICs we tested in the JOPES data base, 43 were assigned to measured units in the NMCC SORTS data base. As previously discussed, no measured resource levels appeared in the JOPES data base for the 12 measured Air Force units. Of the remaining 31 units measured in SORTS, 13 possessed a training level of T-2 or lower and had a training reason code in the SORTS NMCC data base. However, for 12 of the 13 units, the training reason code was missing in the JOPES data base. That problem did not exist for reason codes for the other three resource areas measured in SORTS or for the overall C-level. Analysis of the only training reason code transferred from the NMCC SORTS data base to the JOPES data base showed only one significant difference: the BUPDATE listed for the UIC possessing the training reason code was March 1995, a date prior to the data base synchronization coding change. BUPDATEs on or after April 27, 1995, were listed for all UICs missing a training reason code. We contacted the DISA staff for explanation; however, they were unaware of the situation.

Appendix H. Summary of Potential Benefits Resulting From Evaluation

Recommendation Reference	Description of Benefit	Type of Benefit
1.	Program Results and Management Controls. Identifies comprehensive management measures to correct deficiencies, improve system definition and policy, provide effective management controls, and enhance system effectiveness.	Nonmonetary.
2.	Program Results. Establishes senior DoD accountability of system management and operation.	Nonmonetary.
3.	Program Results and Management Controls. Provides stability to oversight and management, and reduces manager turnover.	Nonmonetary.

Appendix I. Organizations Visited or Contacted

Office of the Secretary of Defense

Office of the Assistant Secretary of Defense, Reserve Affairs, Washington, DC
Office of the Deputy Under Secretary of Defense (Readiness), Washington, DC

Joint Staff

Deputy Director for National Military Command Systems (J-36), Washington, DC
Deputy Director for Medical Readiness (J-4), Washington, DC

Department of the Army

Office of the Chief of Staff of the Army, Washington, DC
Headquarters, U.S. Army Forces Command, Fort McPherson, GA
Headquarters, U.S. Army Europe, Heidelburg, Germany
Army National Guard Readiness Center, Fort Meade, MD
- 4th Battalion 12th Infantry Regiment, Baumholder, Germany
- 111th Engineer Battalion, Texas Army National Guard, Abilene, TX
- 818th Medical Brigade, U.S. Army Reserve, Fort Gillem, GA

Department of the Navy

Office of the Chief of Naval Operations, Washington, DC
Headquarters, U.S. Atlantic Fleet, Naval Base Norfolk, VA
Headquarters, U.S. Pacific Fleet, Honolulu, HI
Headquarters, U.S. Naval Reserve Force, New Orleans, LA
U.S.S. *Barry*, DDG 52, Naval Base Norfolk, VA
U.S.S. *Port Royal*, CG 73, Pearl Harbor, HI
Air Logistics Squadron, VR 46, U.S. Naval Reserve, Naval Air Station Atlanta, GA

Department of the Air Force

Office of the Chief of Staff of the Air Force, Washington, DC
Headquarters, Air Combat Command, Langley Air Force Base, VA
Headquarters, U.S. Air Forces in Europe, Ramstein Air Base, Germany
Headquarters, U.S. Air Force Reserve, Robins Air Force Base, GA
Air National Guard Readiness Center, Andrews Air Force Base, MD
- 9th Bomb Squadron, Dyess Air Force Base, TX
- 7th Security Police Squadron, Dyess Air Force Base, TX
- 1st Fighter Wing, Langley Air Force Base, VA
- 116th Fighter Wing, Georgia Air National Guard, Dobbins Air Reserve Base, GA

622nd Civil Engineer Squadron, U.S. Air Force Reserve, Robins Air Force Base, GA

Department of the Air Force (cont'd)

37 Airlift Squadron, Ramstein Air Base, Germany
335th Training Squadron, Keesler Air Force Base, MS

Marine Corps

Office of the Commandant of the Marine Corps, Washington, DC
Headquarters, Fleet Marine Force Pacific, Camp Smith, HI
Headquarters, Marine Reserve Force, New Orleans, LA
1st Battalion 12th Marine Infantry Regiment, Marine Corps Base Kaneohe, HI
4th Supply Battalion, U.S. Marine Corps Reserve, Newport News, VA

Unified Commands

Headquarters, U.S. Atlantic Command, Naval Base Norfolk, VA
Headquarters, U.S. Central Command, MacDill Air Force Base, FL
Headquarters, U.S. European Command, Vaihingen, Germany
Headquarters, U.S. Pacific Command, Camp Smith, HI
Headquarters, U.S. Special Operations Command, MacDill Air Force Base, FL
Headquarters, U.S. Strategic Command, Offutt Air Force Base, NE

Other Defense Organization

Defense Information Systems Agency, Arlington, VA

Non-Defense Organization

Department of Transportation, U.S. Coast Guard, Washington, DC

Appendix J. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology
  Deputy Under Secretary of Defense (Logistics)
  Director, Defense Logistics Studies Information Exchange
Under Secretary of Defense (Comptroller)
  Deputy Chief Financial Officer
  Deputy Comptroller (Program/Budget)
  Director, Program Analysis and Evaluation
Under Secretary of Defense for Personnel and Readiness
  Deputy Under Secretary of Defense (Readiness)
Assistant Secretary of Defense (Command, Control, Communications, and Intelligence)
Assistant Secretary of Defense (Reserve Affairs)
Assistant to the Secretary of Defense (Public Affairs)

Joint Staff

Director, Joint Staff
  Director for Operations, Joint Staff
  Inspector General, Joint Staff

Department of the Army

Deputy Chief of Staff for Operations and Plans
Auditor General, Department of the Army
Inspector General, Department of the Army

Department of the Navy

Deputy Chief of Naval Operations (Plans, Policy, and Operations)
Assistant Secretary of the Navy (Financial Management and Comptroller)
Auditor General, Department of the Navy
Inspector General, Department of the Navy
Deputy Chief of Staff for Plans, Policy, and Operations, Marine Corps
Deputy Naval Inspector General for Marine Corps Matters/Inspector General of the Marine Corps

Department of the Air Force

Commander, Air Education and Training Command
  Commander, 335th Training Squadron
Assistant Secretary of the Air Force (Financial Management and Comptroller)

Department of the Air Force (cont'd)

Deputy Chief of Staff for Plans and Operations
Auditor General, Department of the Air Force
Inspector General, Department of the Air Force

Unified Commands

Commander in Chief, U.S. Atlantic Command
Commander in Chief, U.S. Central Command
Commander in Chief, U.S. European Command
Commander in Chief, U.S. Pacific Command
Commander in Chief, U.S. Southern Command
Commander in Chief, U.S. Space Command
Commander in Chief, U.S. Special Operations Command
Commander in Chief, U.S. Strategic Command
Commander in Chief, U.S. Transportation Command

National Guard Bureau

Chief, National Guard Bureau
  Chief, Internal Review and Audit Compliance
  Inspector General, National Guard Bureau

Other Defense Organization

Director, Defense Information Systems Agency
  Inspector General, Defense Information Systems Agency
  Chief, Resource Monitoring Branch

Non-Defense Federal Organizations and Individuals

Office of Management and Budget
Technical Information Center, National Security and International Affairs Division, General Accounting Office

Chairman and ranking minority member of each of the following congressional committees and subcommittees:

  Senate Committee on Appropriations
  Senate Subcommittee on Defense, Committee on Appropriations
  Senate Committee on Armed Services
  Senate Committee on Governmental Affairs
  House Committee on Appropriations
  House Subcommittee on National Security, Committee on Appropriations
  House Committee on Government Reform and Oversight

Non-Defense Federal Organizations and Individuals (cont'd)

House Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight
House Committee on National Security

Part III - Management Comments

Under Secretary of Defense for Personnel and Readiness Comments

THE OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

PERSONNEL AND READINESS

FEB 26 1996

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL

SUBJECT: Response to Department of Defense Inspector General Draft Evaluation Report on Status of Resources and Training System (SORTS) (Project No. 6RB-0006.00)

Thank you for the opportunity to comment on the draft evaluation of the Department's Status of Resources and Training System. My staff was pleased with the close working relationship established by your investigators.

Based on a thorough review, we concur with the findings and recommendations of the draft report. However, it is also important to note that there are a number of initiatives already underway to address a majority of the identified deficiencies. These initiatives include:

1. The Joint Staff's planned development of a Joint Automated Readiness System (JARS) which should help to resolve some of the current SORTS deficiencies. Plans for JARS are to be briefed to the Senior Readiness Oversight Council (SROC) at its March 7, 1996, meeting.

2. The Joint Staff's ongoing comprehensive SORTS deficiency correction plan. The status of the plans to upgrade SORTS will also be briefed at the March 7th SROC meeting.

3. A collaborative effort by OSD, the Services, and the Joint Staff (representing the Chairman and the CINCs) to review policy concerns evolving from the DoDIG draft. They will also formulate and assess potential courses of action. This effort will be undertaken by the Readiness Working Group, and the results will be briefed at the May SROC.

Several areas of concern highlighted by the draft report (timeliness, accuracy, training and system complexity) can be readily improved given today's technology using standard "off-the-shelf," user-friendly, icon-driven software. Also, the potential exists to develop data-base integration programs that would allow SORTS resource area data to be directly calculated from personnel, training, equipment and maintenance reporting systems. We look forward to participating in this effort to enhance SORTS and, together with other readiness reporting systems, make it responsive to the needs of the Joint Staff, CINCs, Services, and OSD.

Louis C. Finch
Deputy Under Secretary
Readiness

cc:
DASD(R,T&M)

Joint Staff Comments

THE JOINT STAFF
WASHINGTON, DC

Reply ZIP Code:
20318-0300

DJSM-158-96
27 February 1996

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL

Subject: Joint Staff Response to Department of Defense Inspector General Evaluation Report on Status of Resources and Training System (Project No. 6RB-0006.00)

As requested,[1] the Joint Staff has reviewed the subject report. Our comments are enclosed.

WALTER KROSS
Lieutenant General, USAF
Director, Joint Staff

Enclosure

Reference:
[1] Draft Proposed Evaluation Report on Status of Resources and Training System (Project No. 6RB-0006.00), 29 November 1995

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22 February, 1996

RESPONSE TO SORTS TASKER 95-06878

FINDINGS

Pages 5 and 19

° **FINDING 1:** SORTS has been plagued in past years by major deficiencies affecting reliability and validity of information submitted to senior DOD decision makers. It is ineffective in accomplishing its highest priorities - supporting crisis response and deliberate planning. The NCA, CJCS, and CINCs cannot rely on SORTS to plan deployments; determine authoritative unit status or location; assess execution of OPLANS; or make effective, time-sensitive decisions. However, senior decision makers have an increased need for reliable, real-time SORTS information, as readiness becomes more important and GCCS comes on line.

DJS RESPONSE: Partially concur. SORTS is more effective supporting management responsibilities related to organizing, training, and equipping forces used by the CINCs - its third priority. However, SORTS is not completely ineffective supporting its highest priorities. Some parts of SORTS are effective, such as the UIC registry feature. Unit status information within SORTS is often a start point for crisis response and deliberate planning. Unit location information does not meet all of the CINC needs but provides adequate information for the Services. The Joint Staff is developing a new Readiness System, the Joint Automated Readiness System (JARS), of which SORTS will only be one part. This system, currently undergoing cost estimate and operational concept description, can fix the above mentioned problems and could in place by the end of FY 1998. We continue to search for an equitable balance between the reporting burden placed on commanders, and the senior decision makers' need for information. Achieving this balance is a goal which the Joint Staff will continue to strive for in all actions aimed at improving SORTS.

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° **FINDING 2:** The Joint Staff and Military Departments have taken action, but did not effectively correct systemic deficiencies. No comprehensive action plan was found other than a VCJCS briefing and J-3 message. No comprehensive plan exists that emphasizes correction of all major problems with SORTS, including clarifying the purpose of SORTS and its specific uses.

- The Joint Staff and Military Departments have not instituted long-needed reforms.
- The action plan briefed to the VCJCS in Feb 95 was never formalized.

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- The Joint Staff and Services have not corrected long-standing deficiencies including: — Page 5
  - ambiguous and unenforced reporting requirements
  - ineffective management controls
  - inadequate configuration management
  - ineffective training administration
- Joint Staff and Services have not instituted long-needed reforms. DOD's management information system which collects information on over 9500 reporting units is largely distrusted and ignored at the national and Joint Chiefs of Staff user levels. — Page 19

DJS RESPONSE: Partially concur. Many long-needed reforms have not been accomplished, but a plan to address SORTS problems has been established and is being implemented. Both SORTS policy and functional responsibility now reside with the J-38 Readiness Division. Additionally, the Joint Staff J3 message, "Status of Resources and Training System (SORTS) Scrub," DTG 141921Z March 1995, formalized the plan to improve SORTS. A data reduction effort was conducted and the SORTS database will now accept blank fields as of 26 January 1996. The UIC validation is a semiannual requirement. The first validation was completed in June 1995, while the second validation began in December 1995 and should be completed in February 1996.

° **FINDING 3:** Management functions are not being accomplished for SORTS information in the NMCC database. The Joint Staff, Services, and DISA have not established effective mechanisms to periodically sample and audit the content of the NMCC SORTS database. The Joint Staff has focused management attention almost exclusively on the technical aspects of SORTS modernization, but with the pending implementation of GCCS they need to resolve long-standing functional deficiencies also. — Pages 12 and 19

- Affects accuracy and timeliness of NMCC database.
  - Service automated edit checks do not match those used at the NMCC SORTS database level. Joint edits are not all inclusive. (Differences exist in: Army unit SORTS category levels; USAF equipment locations; the number of Navy units reporting.) — Pages 12 and 13
  - The periodic database reconciliation requirement has not been met. Only accomplished once in April 1995.
  - There are no routine joint database checks. This is blamed on a lack of joint resources. Services verify their own databases. Timeliness is not adequately defined.

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Page 13

- Units are not registered/deregistered. Fragmented units/JTFs are not in the database. Inactivated units are still in the database. The first joint database scrub was in May 1995. Immediately after the IG visit, the Joint Staff initiated procedures to require Services and CINCs to validate unit registration and deregistration semiannually.

Page 14

- No follow-up mechanism exists to correct reporting problems. The Joint Staff, Services, CINCs and DISA have not established effective processes to ensure all problems in the NMCC SORTS database are corrected. DISA stated that they do not have the resources to fix all deficiencies.

Page 14

- Annual data element revalidation, that reviews the adequacy and completeness of current SORTS categories and their measurement criteria to ensure support for user needs, was not accomplished. Joint Staff SORTS managers informed the IG that the Annual SORTS Conference would accomplish this goal. (Ex., tiered reporting has been a routine item of discussion at past conferences; still open.)

Page 13

- Built-in synchronization problems exist because of the various types of automated edits.

DJS RESPONSE: Partially concur. Many of these requirements were not being accomplished. However, the Joint Staff, J38, established an automated capability to generate a daily report on selected (major) units. This report is reviewed daily and identified errors are sent to the responsible agent for correction. This process began on 1 October 1995 and has been tracked daily. The reconciliation conducted from December 1994 through March 1995, was a one-time, complete database reconciliation, as opposed to the periodic sample reconciliation required in Joint Pub 1-03.3. Technical errors found during this procedure must be corrected for periodic reconciliations to be of value. These errors should be corrected by 31 March 1996, at which time periodic reconciliations will commence. Because SORTS problems are both technical and policy in nature, the responsibility for all SORTS matters has been consolidated in one office. The annual SORTS conference was not the correct forum to solve SORTS problems from the Joint Staff perspective. The conference will be restructured prior to the next meeting to meet Joint Staff policy and technical needs.

Pages 5 and 6

° **FINDING 4:** The highest national and command levels have little confidence in SORTS data because of problems relating to accuracy, timeliness, and relevancy. USCINCSTRAT said: SORTS reporting is not accurate or timely enough for crisis decision making; need more real-time data; did not approve of SORTS

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category measurements - broad C-levels can be misleading indicators of critical resource availability. Recommended reviewing the C-level criteria. Major deficiencies are in areas of accuracy, timeliness, and relevancy of information. CINC staffs (the DOD IG visited five unified commands) showed how SORTS, as currently configured and functioning, was ineffective in supporting command decision making under any operational environment. The USSOCOM JOPES manager estimated one-half of SORTS data that supports JOPES were outdated and incorrect. Services' problems with SORTS significantly affect the effectiveness of unit reporting. The Service databases and NMCC database do not match. Also, years old data is in the databases because they are not scrubbed.

Pages 6 - 8

DJS RESPONSE: Partially concur. To improve the accuracy and relevancy of the NMCC database, DISA, in coordination with the Joint Staff, completely downloaded the information in the Joint Staff database and replaced it by inserting data from each Service's database. This synchronized the Services' and the Joint Staff databases. In addition, major changes in the Joint Staff database "processing engine" are underway to synchronize edit checks and processing procedures by including Service unique elements in the joint database. Processing problems that currently inhibit SORTS support of JOPES are slated for correction in conjunction with the GCCS Initial Operational Capability (IOC). Funding is the limiting constraint on the responsiveness of SORTS fixes.

° **FINDING 5:** There are confusing and outdated procedures and a lack of formal training for those who submit and approve unit SORTS reports. Joint Staff SORTS managers have not identified SORTS training needs for joint users, provided guidance to the Single Service Training Manager (the USAF Air Education and Training Command), and coordinated SORTS training among Services. Formal training is not available to a large majority of unit SORTS monitors. Less than one-third of unit SORTS monitors receive formal training. Inadequate training is cited as the leading cause of errors in SORTS reporting. Commanders stated that some type of formal unit commander SORTS training or orientation is necessary.

Page 9

Pages 15 and 16

DJS RESPONSE: Partially concur. The Joint Staff concurs that interpretation is often difficult. The rewrite of CJCS MOP 11 and Joint Pub 1-03.3 will begin after GCCS IOC. A SORTS Data Handler course is conducted by the 335 Training Squadron at Keesler AFB, MS. This course is taught on the road at various locations as requested by the individual Service and MAJCOMs. Each Service and MAJCOM establishes requirements (student numbers and locations) for each fiscal year, and the Mobile Training Team creates the training schedule to meet these requirements. Last year, the school trained over 2,227 personnel. Students were

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primarily from the Army, Air Force, and Marines. Additionally, a two-man team periodically travels to Atlanta to provide training to Reserve Forces. This course - titled, "SORTS Data Handler" - teaches both joint and Service specific procedures. On an average there are 2 Army, 4-6 USAF, and 1-2 Marine courses per month. On 12 February 1996, the Services were tasked to provide the Joint Staff with GSORTS training requirements. On 20 February, the Joint Staff will present these requirements at a GCCS trainers course for funding and scheduling decisions.

Page 9

° **FINDING 6:** The Joint Staff has not clearly defined important SORTS reporting requirements in CJCS directives, by not requiring standardization among Services and not enforcing compliance with requirements. The Services interpret key SORTS reporting requirements for joint users and implement those requirements to best suit Service needs rather than joint needs. The Joint Staff needs to define and clarify SORTS reporting requirements and procedures, standardize terminology and measurement criteria among the Services, and improve configuration management and resolve structural problems with reporting that affect accuracy of SORTS data reported to the NMCC database. Examples are:

Pages 20 and 21

Pages 9 and 10

- Army procedures preclude satisfying the requirement to submit change reports within 24 hours of a change of location or status. The Army also requires units to submit the entire report rather than exception reports as intended by CJCS directives.

Page 10

  - Joint users perceive Army data as untimely for effective use during time-sensitive operations.

Page 10

- USAF does not routinely conduct fragmented unit SORTS reporting in accordance with CJCS SORTS directives. They reflect fragmented units upon deployment using the parent organization unit identification codes.

DJS RESPONSE: Concur. The Joint Staff agrees that CJCS MOP 11 and Joint Pub 1-03.3 need updating. This update is being synchronized with the GCCS IOC. The Joint Staff, in coordination with the DISA SORTS Office, will review both documents after GCCS IOC.

Page 11

° **FINDING 7:** Services have difficulty reporting in all operational environments. For example, SORTS reporting was not effectively implemented during Operations DESERT SHIELD/DESERT STORM or many operational contingencies thereafter. This is because:

- SORTS is complex and difficult to use.

- Joint Staff, Services, and CINCs have not agreed on prioritizing SORTS data elements for different operational environments.

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- Services do not comply and Joint Staff does not enforce reporting requirements.
- Joint Staff and Services have not technically designed SORTS to retrieve information automatically from other required reports (ex., CDR SITREPs).
- These deficiencies have been major issues every year but remain unresolved.

DJS RESPONSE: Concur. The Joint Staff agrees that the Services have difficulty reporting in all operational environments. However, the reasons given for ineffective reporting during DS/DS are incorrect. Some deployed units did not report once deployed from home station - where their automation support tools and communication terminals were still located. To remedy this situation, both the Army and Air Force have developed mobile equipment packages and automation tools to be deployed with forces operating in immature, austere environments. All Services continue to develop equipment and programs to provide units an effective reporting capability. The DISA SORTS Office has noted that the requirement for SORTS to accept and process a formatted SITREP is technically feasible. The Joint Staff will begin exploring the development and implementation of a standardized SITREP format for all reporting organizations in February 1996.

Page 14

FINDING 8: Joint Publication 1-03.3 states the Configuration Review Board will review, coordinate, approve, prioritize, and schedule functional and technical changes within its authority. However, it does not define that authority. The Board has no charter to define its purpose, function, responsibilities, or members or to specify when the Board should meet. From October 1993 to October 1995, the Board did not meet. SORTS managers at CINCs, Services, and DISA are not happy with the effectiveness of the Board and the configuration management in general. Ineffectiveness examples include database synchronization, SORTS and JOPES interface, the absence of effective automated system monitoring and updating, and technical difficulties encountered during SORTS modernization.

DJS RESPONSE: Concur. However, the Joint Staff does not have the capability to fix all identified deficiencies due to funding restrictions. A Configuration Review Board was convened on 14 June 1995 and identified 14 deficiencies, prioritized them, and developed a plan with PERT charts, timelines, and funding recommendations. The Board recommended fixing the top nine items in FY 1996, and DISA provided funding to fix four of the identified deficiencies which were required for GCCS IOC.

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FINDING 9: The Joint Staff scrapped the modernization plan designed and validated in 1990 to implement comprehensive changes to SORTS.

DJS RESPONSE: Nonconcur. The plan was not canceled. It was extensively modified and 18 months were removed from the development cycle, which adversely impacted SORTS modernization. The plan was designed to produce SORTS 6.0. SORTS 6.0 exists today; however, many of the problems associated with SORTS can be traced to modifications made to the SORTS 6.0 modernization plan.

Pages 18 and 19

° **FINDING 10:** SORTS manager turnover on the Joint Staff is high, and the lack of stability at the Joint Staff was viewed as problematic. Two officers manage the program: one for policy and one for daily operation. Both rotated at 7 months and 14 months. SORTS managers at CINCs, Services, and DISA agreed with the above and one representative said that just as problems appeared to be getting resolved, the Joint Staff would change managers, halting progress on SORTS improvements.

DJS RESPONSE: The Joint Staff concurs with this finding. To remedy this situation, the SORTS management, both for policy and daily operation, is now under one office of the Joint Staff , J-38 Readiness. Additionally, the officer in charge is thoroughly familiar with the problems in SORTS and is assigned to his current job for a full 3-year tour.

* * * * *

RECOMMENDATIONS

Page 21

° **RECOMMENDATION 1:** The DOD IG recommended that the DJS develop a formal comprehensive action plan to correct SORTS deficiencies. Key elements of the plan would include:

- Determine specific SORTS information needs and requirements for the NCA, CJCS, and CINCs.
- Simplify SORTS to achieve realistic reporting in all operational environments to relieve the unit reporting burden.
  - Reduce the number of reporting elements.
  - Implement tiered reporting.
  - Update the NMCC SORTS database directly from SITREPs during war and contingencies.
- Review adequacy and appropriateness of reported categories and their range of measurement.

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- Clarify joint policy guidance on roles and responsibilities.
  - Specify purpose and use of SORTS.
  - Identify roles and responsibilities of NCA, CJCS, and CINCs.
  - Clearly specify SORTS reporting requirements and procedures.
  - Develop an oversight mechanism.
  - Implement management controls to ensure SORTS data reported to the NMCC can be monitored for accuracy and compliance.
  - Assess training requirements for all levels of SORTS users and implement training programs.
- Create a centralized SORTS database for NCA, CJCS, CINCs, and Services or develop a technical solution to prevent disparities among various SORTS databases.

DJS RESPONSE: Concur. The Joint Staff has already developed and implemented a plan which encompasses most of these recommendations. Although SORTS cannot answer all readiness questions, numerous actions are ongoing or have already taken place. The rewrite of MOP 11 and Joint Pub 1-03.3 will begin this Spring. The number of required reporting elements in SORTS has been reduced, and an annual review of data elements will occur. The Army will be the test bed for tiered reporting and a thorough evaluation will be made to ensure this meets the needs of the SORTS users. Updating the NMCC database from SITREPs is desired, and the Joint Staff will begin work on this capability at the end of FY 1996.

° **RECOMMENDATION 2:** The DOD IG recommended annual reporting by the Director of Operations, Joint Staff; the Deputy Chief of Staff for Operations and Plans, Department of the Army; the Deputy Chief of Naval Operations for Plans, Policy and Operations, Department of the Navy; the Deputy Chief of Staff for Plans for Plans and Operations, Department of the Air Force; and the Deputy Chief of Staff for Plans, Policy, and Operations, Marine Corps, to the DOD Readiness Working Group on:

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- The effectiveness of SORTS meeting senior decision maker needs.
- Improving oversight mechanisms.
- Implementing management controls.

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- Assessing training needs.
- Developing training programs.

DJS RESPONSE: Partially concur. The RWG will be briefed annually on the status of SORTS improvements. However, the annual report will be presented by the Joint Staff, as the overall responsible agent for SORTS.

Page 22

° **RECOMMENDATION 3:** The DOD IG recommended that the DJS assess personnel assignment policy and methods to increase stability for managing SORTS.

DJS RESPONSE: Concur. This action was completed in June 1995. The officer charged with direct responsibility for SORTS management is qualified and is assigned for 3 years.

Department of the Army Comments

COL Long

DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR OPERATIONS AND PLANS
400 ARMY PENTAGON
WASHINGTON DC 20310-0400

REPLY TO ATTENTION OF

DAMO-OD

1 FEB 1996

MEMORANDUM THRU ~~DEPUTY CHIEF OF STAFF FOR OPERATIONS AND PLANS~~ ~~ASSISTANT SECRETARY OF THE ARMY (M&RA)~~ Noted 2 Feb 96 ~~9FEB95~~

FOR OFFICE OF THE INSPECTOR GENERAL, DoD (AUDITING)

SUBJECT: Evaluation Report on Status of Resources and Training System (Project No. 6RB - 0006)

1. Appreciate the opportunity to review and provide comments on the draft evaluation report. Concur with your assessment that we can improve readiness reporting. The Army is addressing many of the issues with the revision of AR 220-1, Unit Status Reporting. We are also in the process of writing a new regulation, AR 220-XX, ASORTS, which provides definitive guidance for the Basic Identification Data Elements (BIDE) portion of SORTS.

2. It seems that the report evaluated SORTS in isolation and did not consider the entire Chairman, Joint Chief of Staff's Readiness System. The Chairman's Readiness System is designed to assess both unit and joint readiness. Unit readiness focuses on personnel, equipment and training and is assessed by unit commanders and reported through the Services. The Army meets those reporting responsibilities. Joint readiness is assessed and reported by the CINCs.

3. The Army has evolved SORTS to meet its Title 10 responsibilities and SORTS now affects virtually every functional management area and system in the Army. At DA level, SORTS is only one part of a larger readiness picture. Additionally, more detailed information is provided by functionally oriented personnel, maintenance, and logistics systems. This allows DA to identify trends, conduct long range planning, optimize resource management of people, equipment, funds and training to increase combat effectiveness.

4. We will continue to work diligently with the Joint Staff to improve the readiness reporting system to meet the needs of the Services, Unified Commands and JCS. Specific comments concerning the report are enclosed. POC for this action is LTC Gouker, DSN 227-5565.

Encl

~~GREG~~ L. GILE
Major General, GS
Director of Operations,
Readiness and Mobilization

CF:
DAS

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Final Report Reference

DAMO-ODR

HQDA Review and Comments of the DoDIG Evaluation Report on Status of Resources and Training System (Project No. 6RB-0006)

1. **General Comment**. The Army has some concerns about the methodology used in the report. The evaluation report cites numerous specific examples of deficiencies, but makes no assessments of their impact or the prevalence of the problems. The report also cites opposing requirements without discussing the merits of the recommendations. For example, simplification of reporting versus the recommendation for more detailed reporting; reduced reporting timeline versus the review and auditing of reports for accuracy.

2. Page i; **Evaluation Results**. Do not agree with your conclusion that USR reporting is ineffective in supporting contingency operations. The results of current deployments do not support this conclusion. SORTS works with other systems such as JOPES, TPFDD, and JCS Situation Reporting to meet the information requirements of JCS, CINCs, and DA. Without doubt the process can be improved and streamlined. We are working with JCS in their development of the Joint Automated Readiness System to improve reporting during contingency operations and wartime.

3. Page 6; **Figure 1**. This is an incorrect representation of a few comments. I would submit that HQDA does not consider the accuracy of SORTS data at DA as "fair."

Page 6

4. Page 7; **Other Joint User Concerns**. SORTS data used in JOPES is not as current and accurate as desired. The primary problem is that JCS and HQDA are currently operating on different systems. JOPES is operational on WWMCCS and is not immediately or automatically updated by SORTS. This is done periodically. The GSORTS that the action officers at unified commands are using is on GCCS, which is not yet an operational system at DA.

5. Page 9; **Multiple Data Bases**. The Army's official database is on WWMCCS and the Joint Staff's on GCCS. This means that there is no longer an ability for us to verify information in the same manner as we did in the past. However, we instituted quarterly UIC reviews to ensure more accurate information. It was necessary because GCCS does not have the same edit checks. We are slowly working our way through all these types of problems as we are fielding AGCCS.

Page 9

6. Page 10; **Army SORTS Reporting Procedures**. The Army policy of allowing nine working days for Unit Status Reports to reach DA for Active Army units and 21 days for reserve units allows sufficient time for units to compile the reports, review for contents and accuracy at various command levels, as well as provide sufficient time for major combat units to submit composite reports. This forms the basis on one of the Army's primary management tools. All other USR reports and BIDE reports, which are by definition exception reports, must be submitted within 24 hours of a change. DA averages over 300 of these types of reports per month.

Final Report Reference

DAMO-ODR
HQDA Review and Comments of the DoDIG Evaluation Report on Status of Resources and Training System (Project No. 6RB-0006)

7. Page 10; **Fragmented Unit Reporting**. Agree with your findings. The Army has instituted three initiatives to improve reporting and monitoring of derivative UICs. MTO&E changes are restricted to an annual cycle thereby reducing turbulence. Publication of a new regulation (AR 220-XX) will provide concise guidance on the registration of UIC and derivative UICs. AR 220-XX has been staffed with all the MACOMs and comments are currently being reviewed by the appropriate DA staff section. Development of a Deployment Report, in the new revision of AR 220-1, will significantly reduce the burden on reporting units. In addition the revised AR 220-1 requires derivative UIC units to report during contingency operations and wartime using the new Deployed Report.

8. Page 11; **Wartime and Contingency Reporting**.

a. The major problem is that deployed units have two reporting requirements during contingency operations or wartime. Units are required to submit SITREPs by their chain of command every 24 hours. The SITREPs are submitted to the CINC and JCS. SITREPs are not part of SORTS, the reporting format is different, and the generation and transmission medium are also different (PCASORTS versus the Maneuver Control System).

b. The Army is requiring units to submit USR reports during JOINT ENDEAVOR. The Army, however, did not implement the new deployed report because it is still in draft form. We will reassess the value of USR deployed reports after the operation.

9. Page 13; **Figure 3**. This Figure is inaccurate. Page 12

a. Periodic Data Base Reconciliation is done on a semi-annual basis. In addition a ten percent review of key data elements is conducted each month.

b. We always conduct reviews of the Joint database. It is more involved than spot checking 125 UICs. Now we do a 100% check of all UICs since the Joint Staff went to separate software on a separate system.

c. Timeliness is ensured by HQDA requiring all major combat units and 97 percent of all other units to report prior to locking the database each month for the CSA Monthly Readiness Review.

d. Registration and Deregistration are a daily process. Unsure what the report is referring to when stating this is not occurring.

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DAMO-ODR
HQDA Review and Comments of the DoDIG Evaluation Report on Status of Resources and Training System (Project No. 6RB-0006)

Page 15

10. Page 16; **Training Management**.

a. SORTS is comprised of two distinct parts: Unit Status Reporting (USR) and Basic Identification Data Elements (BIDE). USR are prepared and reported by unit commanders. BIDE data, which includes unit registration, location, command lines, attribute data, and transaction guidance, are input and monitored by UICIOs at MACOM and installations. The BIDE portion of SORTS is therefore not be well understood by most of the Army.

b. The Army USR system is a mature and well-understood system at all levels of command. The entire chain of command uses the USR report as a primary management tool to determine the status of subordinate units, whether subordinate commanders are using available assets effectively, and where assistance or action is required to maintain the highest possible state of readiness. The management methods may vary substantially between corps and MACOMs. However, the results are briefed by commanders up the chain of command.

11. Page 16; **Unit SORTS Monitor Training**.

a. Concur that we need to develop a formal training program for UICIOs. As part of the AGCCS fielding ASORTS training is part of the program of instruction. Based on feedback from those classes we will reevaluate the training requirements. It is interesting to note that the UICIO portion of ASORTS training provided by Single Service Training Manager was dropped from the POI based on input from students.

b. The training concept for unit USR monitors is train-the-trainer, implemented at MACOM and installation level. MACOMs have not requested a formal training program at DA level. It is important to note that the USR data is compiled and analyzed by the appropriate staff principal. USR monitor is usually an additional duty, with the primary responsibility of consolidating the inputs and transferring the data to PCASORTS.

Page 16

12. Page 17; **Unit Commander Training**. Most Army commanders have been Executive or Operations officers and are therefore familiar with USR reporting. Agree, because reporting requirements change, training for unit commanders may be of value. We will coordinate with Training & Doctrine Command (TRADOC) to validate the need and assess the viability of adding a section on USR reporting to appropriate institutional courses.

Page 16

13. Page 17; **Command Staff Training**. The Single Service Training Manager provides both GSORTS and ASORTS courses. However, it is up to the commands to fund and provide the necessary time to send their staff officer to the courses.

Page 17

14. Page 18; **Instituting Reforms**. Do not agree that the Army has ignored previous inspections and reports, and has not implemented required changes. Since Operation Desert

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Shield/Storm, AR 220-1 has undergone two major revisions in 1991 and 1993, twelve interim changes, and HQDA is currently in the process of publishing another revision with an implementation date of June 1996. These revisions are based on lessons learned and recommendations from DAIG inspections, GAO reports and other studies. Each data element included or not included has been the subject of considerable study and debate. Nearly every point represents some degree of compromise. USR reporting procedures must provide both the operational and management personnel the information they require to optimize the use of resources.

15. Page 22, para 1b; **Recommendation for Corrective Action**. The requirement to simplify SORTS reporting is a prevailing contradiction that exists throughout the report. To achieve realistic reporting in all operational environments and relieve the burden on units is always a goal. However most previous reports referenced recommend additional and/or more detailed reporting requirements to the USR thereby increasing the burden on units. Page 21

16. Page 62; **Complete Unit Status Reporting Timelines**. Page 60

a. JCS Pub 1-03.3 requires that USR data is not older than 30 days. Reporting units are therefore required to calculate each resource area every month.

b. With the fielding of PCASORT the administrative burden is significantly reduced on reporting units. In addition, numerous automated systems (SIDPERS, SPBS-R, ULLS) are available to assist staff officers in providing the necessary data to complete the USR reports.

c. As pointed out previously, the USR is used as a primary management tool throughout the Army. Each month USR results are briefed up the entire chain of command. Many commands require additional and background information to increase the value of these monthly meetings as a resource management and operational tool. It is these additional requirements that significantly increase the time required to prepare for the monthly USR. The commanders at every level decides if the additional time spent on the monthly USR is worth the benefit.

d. The statement about the age of National Guard and Reserve units is incorrect since they submit verification reports monthly.

17. Page 63; **Potential for Measurement Based on Projected Status**. The Army policy of allowing nine working days for Unit Status Reports to reach DA for Active Army units and 21 days for reserve units allows sufficient time for units to compile the reports, review for content and accuracy at various command levels, as well as provide sufficient time for major combat units to submit composite reports. Do not believe this is a widespread problem. Page 61

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DAMO-ODR
HQDA Review and Comments of the DoDIG Evaluation Report on Status of Resources and Training System (Project No. 6RB-0006)

Page 62

18. Page 64; **Change Reporting.**

a. The reason the number of Change Reports submission is small is that the only functional area data that fluctuates from day to day is personnel and equipment-on-hand. Because units may be on the edge for a given resource area, the overall C-level may change but the percentage of change is very small. Army units do not track functional area readiness data on a daily basis so they are probably not aware of these minor fluctuations. However, major changes are reported.

b. The Army requirement to submit the entire USR report when submitting a Change Report does not increase the workload on the unit. A unit uses the last report submitted on PCASORTS and updates only the data elements that have changed. By submitting the entire report, editing errors and outdated remarks are kept to minimum. Your queries verify the benefit of this policy.

Page 63

19. Page 65; **Relevance and Standardization Issues.**

a. It is unclear if the report is referring to USR and/or BIDE data in this section. Army USR data does not vary significantly from one month to the next. Personnel and equipment-on-hand are only impacted significantly when a major MTO&E change is implemented. Both equipment readiness, which is calculated on a 30 day average , and training readiness does not improve or degrade drastically from one month to the next.

b. Other USR and BIDE data is time sensitive and must be submitted within 24 hours of a change occurring.

c. The Army has just finished staffing AR 220-1 with an expected implementation date of June 1996. The regulation will improve standardization by clarifying numerous discrepancies, simplifying reporting requirements, and including a quantitative methodology for measuring unit training status .

20. POC is LTC Gouker, DAMO-ODR, DSN 227-5565.

Department of the Navy Comments

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20350-1000

FEB 1 1996

MEMORANDUM FOR THE DEPARTMENT OF DEFENSE ASSISTANT INSPECTOR GENERAL FOR AUDITING

Subj: DRAFT EVALUATION REPORT ON STATUS OF RESOURCES AND TRAINING SYSTEM (PROJECT NO. 6RB-0006.00)

Ref: (a) DODIG Memo 29 November, 1995

I am responding to the draft evaluation report forwarded by reference (a) concerning the Status of Resources and Training System (SORTS).

While the Department of the Navy interposes no objections to the report findings and recommendations, we defer to the Director, Joint Staff, concerning the appropriateness of the reports recommendations in view of the Joint Staff responsibilities for SORTS policy, procedures and oversight.

BERNARD ROSTKER
Assistant Secretary of the Navy
(Manpower and Reserve Affairs)

Department of the Air Force Comments

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON DC

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING
OFFICE OF THE INSPECTOR GENERAL
DEPARTMENT OF DEFENSE

30 JAN 1996

FROM: AF/XO

SUBJECT: Status of Resources and Training System (Draft of Proposed Evaluation Report) Project No. 6RB-0006.00 dated 29 Nov 95

We have reviewed the draft evaluation report and concur with the recommendations. The Air Force will work with the Joint Staff to determine needs and requirements, simplify the SORTS, and clarify policy. The Air Force will report SORTS effectiveness to the DoD Readiness Working Group annually in coordination with the Joint Staff.

Our POC is AF/XOOOR, Lt Col Dave Garten, 697-6597.

RALPH E. EBERHART, Lt Gen, USAF
Deputy Chief of Staff
DCS, Plans and Operations

U.S. Strategic Command Comments

DEPARTMENT OF DEFENSE
UNITED STATES STRATEGIC COMMAND

24 Jan 96

Reply To:
USSTRATCOM/J001
901 SAC BLVD STE 2A3
OFFUTT AFB NE 68113-6000

MEMORANDUM FOR THE DEPARTMENT OF DEFENSE INSPECTOR GENERAL

Subject: Evaluation Report on Status of Resources and Training System (SORTS)

1. USSTRATCOM appreciates the opportunity to review the subject report and the following is submitted as a result of our review.

2. USSTRATCOM concurs with the report and the recommendation the Joint Staff Director of Operations, in coordination with the unified commands, the Military Departments, and Defense Information Systems Agency, develop a formal comprehensive action plan that would correct Status of Resources and Training System deficiencies. Additionally, we concur with the recommendation that an annual report be submitted to the DoD Readiness Working Group on the effectiveness of SORTS in meeting senior decision maker needs. Finally, we concur with the recommendation for assessment of personnel assignment policy and methods to provide greater stability to the management of SORTS. My staff stands ready to assist in this endeavor and fully supports the development of a SORTS system that is adequate to support the decision maker's information needs.

3. The USSTRATCOM OPR for all SORTS-related matters is Mr. James W. Mueller, GS13, DSN 271-6474.

ARLEN D. JAMESON
Lieutenant General, USAF
Deputy Commander in Chief

U.S. Army Special Operations Command Comments

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY
SPECIAL OPERATIONS COMMAND
FORT BRAGG, NORTH CAROLINA 28307-5200

REPLY TO
ATTENTION OF:

AOOP-FR 15 Feb. 95

MEMORANDUM FOR The Inspector General, Department of Defense, ATTN: LTC Moore, 400 Army Navy Drive, Arlington, VA 22202

SUBJECT: Reply to Evaluation Report on Status of Resources and Training System (Project No. 6RB-00006.00)

1. Comments on the Content of the report.

a. Page 9, Multiple Data Bases

(1) Once an evaluation of a unit's readiness passes up the chain of command, no one who is more than two levels removed, (the level of the commander's senior rater) can accurately comment on or correct the subjective and most of the objective data in a SORTS readiness report. The best the system can hope for is "technical" or "format" correctness. Redesigning the readiness reporting system will not solve this problem. The higher level staffs are just going to have to learn to trust the chain of command.

(2) The most common source for data entry into the current SORTS data bases is the MACOM (MJCOM) level. This is the last time the data is reviewed before it is distributed throughout the network. This is the level with the best (not perfect) information to do data base audits. This is also the level that does not have access to the NMCC data base to audit for accuracy. (Also effects page 14, "Auditing for Accuracy and Timeliness", and "Unit Registration".)

(3) The current software requires a special transaction to delete old data. In addition, the MACOMs update Army with transactions, but the Army does not use transaction procession to update NMCC. NMCC is updated with a "data element swap/overwrite" technique. If the old data (usually a remark card left over from the old JRS format) isn't overwritten, it will sit around forever. (Also effects page 14, "Unit Registration".)

Final Report Reference

AOOP-FR
SUBJECT: Reply to Evaluation Report on Status of Resources and Training System (Project No. 6RB-00006.00)

b. Page 12, Monitoring and Data Quality Management.

USASOC SORTS managers manage a process on a monthly basis called a "USR Command Review" where the MACOM, MSC and MSU staffs review the USR input for accuracy and technical (format) quality. This is an expensive process, but it achieves a level of accuracy and confidence in the data that cannot be achieved any other way.

c. Page 14, Annual Data Element Revalidation.

(1) This is a subject that comes up every SORTS Conference. Every year I have worked on what elements need to be deleted, and every year nothing happens. The working groups will make recommendations, but the people in charge will not make any decisions.

(2) The part of the puzzle that is not addressed is the formula, logic, and methods used to arrive at a data element in the data base. Many times the data element is a small, relatively simple entry, for example personnel readiness equals P-1, will take from 2 to 8 hours for an Army unit to develop and verify on a regular monthly report. The total number of the data elements in the data base is not the problem. The process behind the data element is what needs to be examined.

b. Page 16, Training Management. Page 15

(1) USASOC DCSOPS sponsors the "USASOC SORTS Data Handler's Course" four times a year. This is a one week, (32 hour) program of instruction intended to train unit staff members to have a basic understanding of the functions and purposes of SORTS at Army and Joint levels, data base interfaces and effects, and concentrating on how to fill out the Unit Status Report, and use of the Army PCASORTS software. This course is listed in ATRRS under school code 914, as ATRRS-SORTS.

(2) Unit Status Reporting is a one hour block of instruction in the ARSOF Pre-Command Course.

(3) In the future, we would like to develop an exportable four to six hour program of instruction to train supervisors in the supervision of data input, and the effect on their unit when using SORTS and JOPES.

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Page 64

e. Page 66, Fragmented Unit Registration.

At USASOC we have pre-registered most of the active component standard tactical units down to and including the 12, 6, and 4 man tactical teams in Special Forces and Civil Affairs. We register and mobilize fragmented units for operational requirements as requested within 20 minutes for emergencies, and 24 hours for normal processing on a daily basis.

Page 64

f. Page 66, Major Deficiency with Army SORTS.

By pre-registering the standard tactical units, and streamlining the bureaucracy used to request and register the derivative UIC, the majority of the problems in this paragraph will go away. The tracking of a unit after it deploys is currently a problem, but with the advent of the new deployed reporting procedures in the current draft AR 220-1, due out June 96, this problem should be overcome, providing the procedures in the regulation are followed.

Page 64

g. Page 66, Military Tables of Organization and Equipment.

I think you mean to say "Modified Tables of Organization and Equipment" (MTOE). The lack of TUCHA data in JOPES for small tactical units is a significant problem. This ties into SORTS by the UTC (unit type code) that is tied to the SRC (standard requirements code) normally referred to by unit members as the MTOE number (a TAADS data element). This is an excellent example on how the different systems are tied together and how a policy decision in one area can have significant impact on the others. It also demonstrates the difficulty in getting a change worked through the staff(s) to fix this problem. Who is responsible? Force Development/Integration works the MTOE, and assigns the SRC. FORSCOM (I think) acts as the executive agent for the Army to develop the TUCHA data for JOPES and the UTC. The UTC is a SORTS data element, but it does not have a significant effect on the SORTS data base. Finally you can use a non-standard UTC to register the UIC in SORTS data base. The effect to the manager is all the JOPES cargo data has to be custom loaded by hand (vs. automated systems used by FORSCOM) and the logistics sustainment data for the unit when deployed must be calculated and entered by hand. These are significant concerns that need to be addressed, but they are not show stoppers for registration of derivative units.

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2. Comments on correcting the "System":

a. Education.

(1) The SORTS system only rates a couple of paragraphs in the "purple book" that is used as a staff guide for those of us who interface with Joint Staffs on a regular basis. This also indicates the amount of emphasis SORTS receives at the War College. For comparison, JOPES rates over 50 pages of detailed explanation, diagrams, and examples.

(2) In order to "fix" the SORTS education system for commanders, SORTS training must be included in every level of officer education from the Advanced Course (O-3 level) to the War College. To my knowledge, the only branch in the Army currently conducting any SORTS training is the Chemical branch. (This is in the basic and advance course because the USR usually ends up as an extra duty for the unit NBC officer.)

b Most Army SORTS managers are located in the Force Development or Force Integration Directorates in Army MACOMs. Some have the status of an independent Directorate. All of these SORTS managers need to be in the Operations Directorate, (preferably current operations) if you want SORTS to react as a decision support system at operational speeds.

c. All of the problems with SORTS have been known for years, and solutions have been recommended and "doable" for the same amount of time. Unfortunately, nothing happens. Moving the system from WWMCCS to GCCS will not correct these problems. GCCS will only allow the problems to happen faster. One person must have the authority to make changes to the policies that direct SORTS, and the authority to enforce them.

d. The Purpose of SORTS must be clearly defined. Although the types of data used for administrative management and crisis management are the same, these are mutually exclusive purposes. To demonstrate examine the following scenarios:

(1) When a service declares a unit "not ready" it indicates a management failure. (Even though it may be "not ready" because it is already engaged.) The Joint Staff wants the unit to be "not ready" to indicate it is already engaged.

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(2) When the Service doesn't declare all a unit's equipment "reportable" on SORTS, the Joint Staff doesn't get the full grasp of the unit's mission capabilities. The Service doesn't declare all equipment "reportable" because it can't afford to buy everything, and the drop in readiness ratings would indicate a management failure.

e. Army SORTS predates Joint SORTS. The Army system has so many major ADP systems and sub-systems linked to SORTS data that no one person or office can describe or document all the relationships. I can't offer any solutions for this dilemma, but I offer it up for consideration.

3. Thank you for the opportunity to comment on this report. The point of contact for this document is the undersigned, DSN 239-2065.

PATRICK D. SNYDER
Deputy Chief, Force Readiness Division

Evaluation Team Members

This report was prepared by the Readiness and Operational Support Directorate, Office of the Assistant Inspector General for Auditing, DoD.

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